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ABSTRACT

To facilitate normalization and deinstitutionalization of mentally retarded individuals, a three-phase assessment/prescription system has been developed to correspond with a concept of community integration as a series of successive transfers from (1) a restricted environment through (2) a specialized program-oriented rehabilitation and to (3) the least restrictive community living alternative possible. The assessment system consists of three criterion-referenced instruments which are specifically constructed to accomodate differential levels of functioning at each of the three phases of the proposed model. At the screening (pre-selection) level, a skill assessment instrument has been developed and validated to initiate deinstitutionalization processes by identifying individuals who are most likely to profit from available training. At the programing (post-selection) level, an observation-based instrument has been developed and validated to identify programatic entry levels to measure behavioral gains as a function of training. During the first 2 years of the project, 560 mentally retarded individuals have been assessed at the pre-selection level and 412 at the programing level. At each level, reliability and validity of the particular instrument have been demonstrated and direct relevance to the highest level of independence are emphasized. At the community level, a skill assessment instrument is currently being developed for validation. (Appendixes include sample materials and referenced samples.) (SBH)

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FINAL REPORT

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INDIVIDUAL ANALYSIS AND PRESCRIPTION

PROFILES FOR DEINSTITUTIONALIZATION

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ABSTRACT

Recently, the pursuit of normalization and deinstitutionalization objectives has led to a significant change in the delivery of services for individuals with mental retardation problems. With the shift from custodial care with limited individual programming to systematic training for functional independence, community integration has become a major goal.

To facilitate the attainment of this goal, a three-phase assessment/prescription system has been developed to correspond with a concept of community integration as a series of successive transfers from (1) a restricted environment through (2) a specialized program-oriented rehabilitation and to (3) the least restrictive community living alternative possible. This assessment system consists of three criterion-referenced instruments which are specifically constructed to accommodate differential levels of functioning at each of the three phases of the proposed model.

At the screening (pre-selection) level, a skill assessment instrument has been developed and validated to initiate deinstitutionalization processes by identifying individuals in non-training environment (e.g. institution) who are most likely to profit from available training services at short-term specialized habilitation facilities. At the programming (post-selection) level, an extensive observation-based instrument has been developed and validated to identify programmatic entry levels to measure behavioral gains as a function of training programs thereby monitoring the individual's progress through the entire intervention process. During the first two years of the project 560 individuals with mental retardation problems have been assessed at the pre-selection level and 412 at the programming level. At each level, reliability and validity of the particular instrument have been empirically demonstrated and direct relevance to the highest level of independence are emphasized.

Finally, at the community-entry level, a skill assessment instrument is currently being developed for validation to measure post-institutional progress in a variety of community environments such as natural or foster homes, group homes and other maximum independent living arrangements.

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TABLE OF CONTENTS

ACKNOWLEDGMENTS.	ii
LIST OF FIGURES.	iv
LIST OF TABLES	v
CHAPTERS	
Introduction.	1
Statement of the Problem.	3
Objectives.	6
I. Conceptual Design and Procedures.	8
II. Progress Report	19
Pre-Entry Instrument	
Development.	19
Administration and Scoring	19
Sample Population.	22
Reliability.	22
Pre-Entry Assessments Conducted by Telephone	27
Revisions.	28
Post-Entry Instrument	
Development.	30
Scoring.	42
Sample Population.	44
Reliability.	44
Monitoring	52
Validity	57
III. Discussion.	64
REFERENCES	
APPENDICES	

LIST OF FIGURES

FIGURES

1. Deinstitutionalization Processes as a Three-Phase Assessment/Prescription System. 12
2. Flow of Persons related to Screening (Pre-Entry Instrument), Programmatic Intervention (Post-Entry Instrument) and Community Follow-Up (Community Living Skills Profile). 15
3. Reliability Profiles. 50
4. Assessment Profiles: The Case of Tommy 54
5. Total Number of Post-Entry Assessments. 62

LIST OF TABLES

TABLES

1. Functional Relationships Between Normalization - Deinstitutionalization - Community Integration.	11
2. Analysis of Stability of Pre-Entry Data: Skill Profile	24
3. Analysis of Stability of Pre-Entry Data: Maladaptive Behavior Checklist.	25
4. Analysis of Stability of Pre-Entry Data: Independent Living Checklist.	26
5. Pre-Entry Instrument: Telephone vs. Personal Assessments	28
6. Equating Levels of Functioning with Community Living Alternatives	35
7. Example of Rating Procedures: Motor Development Subscale.	36
8. Overall Layout of the Post-Entry Instrument	37
9. Example of Behavioral Ratings as Returned by the Group of Independent Raters	38
10. Examples of Behavioral Ratings Demonstrating Independent Living Items.	40
11. SEVTC Population Distribution	45
12. Inter-Observer Correlation Matrix	47
13. Test-Retest Correlation Matrix.	49
14. Split-Half Reliability Correlation Matrix	51
15. Ratings of Resident's Readiness for Community Placement	59
16. Post-Entry Instrument: Validation.	61

INTRODUCTION

In the past, centralized state institutions have been the most prominent symbol of services for individuals with mental retardation problems (i.e. the developmentally disabled). It is this group approach to individual needs which frequently has led to the impersonal qualities and dehumanizing effects often attributed to such facilities (Baroff, 1974). Recently, a growing concern that the typical large, multi-purpose residential facility is essentially "unreformable" has led to recommendations for its eventual replacement by community-based programs and services (Wolfensberger, 1959, 1971a, 1971b; Thurman and Thiele, 1973).

During the last decade there has been a significant and nationwide shift in the delivery of services for individuals with mental retardation problems. Where the main concern previously has been to provide shelter and maintenance, the current emphasis is on development of the physical, social, and mental growth of the individual within the least restrictive environment possible. The development of innovative services is reflected in changes in state and/or federal legislation as well as in the development of community-based programs/services.

Community-based training centers represent a midpoint for service delivery systems, falling between the large state institutions at one end of the continuum and the community at the other (Morrey, Reavis, Rice, Byrne, Andresen and Watrous, 1975). They are designed as small, specialized, short-term facilities to prepare individuals with developmental handicaps for community integration through systematic programming efforts. Inherent in such settings is an admission policy which enables the person to be admitted to, discharged from, and returned to the facility

for short periods of time when necessary. Other characteristics of local centers include numerous and diverse opportunities for individual development and expansion of the self-sufficiency and social skills necessary for adjustment to a successful life in the community.

Most of the current trends in the field of service delivery share the implicit assumption that segregated services are no longer justified. It has been shown that individuals with mental retardation problems benefit greatly from taking part in the general provisions of educational, social, and health services available to the population at large (Perske, 1972).

The concepts of normalization and deinstitutionalization and the impact of the developmental model have helped to remove some of the lines of demarcation which have hampered individual development in the past. The national goal of those working in the field of mental retardation is to integrate the developmentally disabled into the mainstream of society. This goal calls for returning individuals from large institutions to their respective communities and mandates the availability of community-based services/programs which may eventually eliminate institutional placement for the majority of individuals with mental retardation problems. Considerable progress has been made during the last few years--progress which is most clearly reflected in the beginning of a decline in the number of institutionalized persons. Until recently, primary beneficiaries of increased discharge rates have been mildly retarded persons (Segal, 1971). However, normalization and community integration are goals which apply equally well to all individuals with mental development problems, regardless of the degree or severity; i.e. living in the least restrictive setting which can meet the individual's training, work, and personal support needs.

Statement of the Problem

In view of contemporary efforts striving for deinstitutionalization and community integration of individuals with developmental problems, it becomes critical to establish methods for coordinating the programs for achieving these goals. The problem is that individuals with mental retardation problems usually have not been evaluated appropriately to maximize their chances of learning skills for community living.

If functional independence is advocated as the ultimate goal for all individuals with developmental problems, a procedure must be established which accounts for each individual's progress towards that goal. Such a procedure includes processes of survey, assessment, evaluation, and monitoring, based on the recognition that the developmentally disabled individual, like everyone else, functions at different levels of independence at various stages of his life. His level of independence, as for most people, is primarily a function of the type and quality of the environment to which he is exposed. That is, in a very restrictive environment unsupplemented by systematic training efforts, developmental gains are minimal. On the other hand, a carefully planned and individually tailored training environment provides individuals with mental retardation problems with the repertoire of adaptive skills that is a prerequisite for successful living in the least restrictive community setting.

If normalization is defined as a series of successive transfers from a very restricted to less restricted environments, it becomes obvious that actual levels of functioning may range along a continuum from complete incapacity to full capacity for independence. Instead of labeling individuals with developmental problems according to discrete

catagories such as mild, moderate, severe, or profound retardation, the emphasis here is a developmental continuity between the individual functioning at a level of total dependence and the individual functioning autonomously (Reavis, Morrey, Hamel, 1976).

Growth along a developmental continuum is facilitated by continual assessment of skill levels as the integral component of the teaching process. If progress toward community integration is viewed as a function of the rate of acquisition of adaptive behaviors and the rate of extinction of maladaptive behaviors, assessing the rates of acquisition of appropriate and inappropriate behaviors becomes critical, since it provides an objective means by which to refine a meaningful plan of service for each individual. Furthermore, assessing levels of functioning provides a means by which accountability can be maintained for services provided to individuals with developmental disabilities, i.e. a measure of relevant and appropriate changes which occur in the person. Thus, assessing skill levels provides not only a method of setting goals for each individual but also a means of evaluating the results of training efforts. The information collected for each individual through systematic skill assessment is fundamental in building and managing programs.

Reviewing the most frequently used instruments in the field of mental retardation, Reavis et al. (1975) concluded that existing assessment instruments not only require substantial investment of professional time and training to obtain data that often have low correspondence to direct program implementation and placement decisions but are also of low reliability. As Dickson (1975) pointed out, in actual practice, assessment information frequently leads to labeling, without further significant use of the information itself. Employed

in this manner, the assessment process becomes an end in itself. However, to say that an individual functions in the retarded range is of little value, unless specific suggestions can be made which identify those training areas that are pertinent to the acquisition of skills necessary for community living.

In view of the apparent lack of instruments which provide reliable information for individual training program development and implementation and which facilitate placement decisions, a three-phase assessment prescription system was proposed by Reavis et al. in 1975. The project described a plan to develop and validate a set of criterion-referenced instruments which could be used to collect reliable information about the individual's skill level at different stages of normalization training. Normalization and preparatory training for community living are conceived of as a three-phase process with successive moves from (1) restrictive (i.e. institution) through (2) specialized short-term program-oriented facilities to (3) least restrictive community environments. As the individual progresses from care-dependent status to greater independence and self-sufficiency; from a sheltered residential and work program to a group home; and ultimately, to optimal independence or autonomy and self-management, instruments which accurately measure the extent of the individual's existing behavior repertoire at each stage will facilitate continued acceleration.

Based on the conceptual foundations outlined above, the first phase of the project (1974-1975) developed the Pre-Entry Instrument to be used for making decisions about the current feasibility of an individual's entering a community program. After transfer, the habilitative emphasis shifts from an earlier concern for basic self-

help skills to a more encompassing concern for his social, cognitive, emotional, and language competence. Subsequently, to accomodate the second phase of the proposed system, an instrument was validated for use by program-oriented and community agencies involved in training developmentally disabled individuals for community living.

Objectives for 1975-1976

The specific objectives of the second year were:

1. To validate an extensive observation-based instrument for measuring behavioral entry levels and changes.
2. To provide assessment information with greater than 90% reliability.
3. To provide assessment information with greater than 90% validity.
4. To provide programming staff with accurate, reliable information concerning the individual's current level of functioning in order to facilitate the selection and implementation of training programs.
5. To institute a monitoring system which, when employed on an intermittent basis, permits records of the resident's programmatic needs.
6. To use monitoring assessments for providing feedback information to programming staff; to extend, modify, or redesign training programs; or to reinforce the continuation of existing programs.
7. To initiate planning for the third year (1976-1977) of the project's validation of the Pre- and Post-Entry Instruments and planning for the third instrument.

The overall goal in the development and validation of the Post-Entry Instrument is to identify individual needs in terms of life competencies in order to ensure development of skills necessary for adjustment to optimum independent living. By incorporating assessment

and monitoring processes in one measurement system, the identification of skill deficits can lead to continuously adjusted prescriptive intervention to facilitate the individual's moving from dependence through a period of semi-independence to a level of optimal independence.

Both components of this dual post-entry system are equally important. The assessment component carries the responsibility of identifying skills and entry levels, while the monitoring component involves the task of assessing whether the individual's deficits are, in fact, met by the prescribed programs. Research (Reavis et al., 1975) has indicated that existing instruments do not provide this dual function. Hence, the recognition of this gap in instrumentation was the major impetus for development and validation of the Post-Entry Instrument.

Chapter I

CONCEPTUAL DESIGN AND PROCEDURES

The overall project is developed around three fundamental concepts: (1) normalization, (2) deinstitutionalization, and (3) community integration. According to Wolfensberger (1972), the principle of normalization evolved from a deliberate attempt to translate the nationwide search for an alternative to the traditional institution into a workable concept for practical application. The ultimate concern of the normalization principle is the attainment of adaptive behavior. Essentially, normalization mandates that a continuum of services be available to every person, based on his individual needs. These services should supplement training and learning opportunities with everyday living experiences which are as close as possible to the norms and patterns of the mainstream of society.

An immediate corollary of the normalization principle is the redefinition of mental retardation, which can no longer be viewed as a specifically medical, psychological, social, or legal concept. The redefinition stresses the current behavior of the individual and the relationship of that behavior to the standards of a community. Thus, the characteristics of both the individual and community are important in this concept of mental retardation. Berkson (1973) pointed out that, without a statement of these characteristics, the concept of mental retardation has no meaning. Similarly, Daniels (1974) expressed a need for a two-way flow of services to provide a guide for the individual in order that he may become more aware of his environment and training to assist the community in integration programs. Zipperlen (1974) expressed the opinion that it would be an unfortunate misunder-

standing of the normalization philosophy to believe that only the individual with mental retardation problems must change, or be changed, in order to integrate into the "normal" community.

At the same time that the evolution of the normalization principle was taking place, criticism of the large multi-purpose institutions was growing (Wolfensberger, 1971a). A primary target was the unmanageable size of these facilities, which prohibited personalized approaches to training and care. In accordance with the concept of normalization, the smaller community-based facilities were designed to emphasize the development of skills leading to behavioral autonomy and community-living in the least restrictive setting.

Normalization as a concept has also been instrumental in removing some of the misconceptions revolving around individuals with mental development problems. For instance, there has been a widespread view of the mentally retarded person as an "eternal child". However, individuals who are adults, whether mentally retarded or not, are men and women, not boys and girls. Only recently has it been recognized that it is by no means typical for adults to remain with their parents through their entire lives. Normalization training has supported the idea of the individual's being encouraged to find a place to live and to choose his own friends in the least restrictive way possible (Cherington and Dybwad, 1974).

During the last few years, the normalization principle has been systematically extended into an ongoing process which is frequently referred to as deinstitutionalization. Deinstitutionalization processes have been developed under the influence of numerous court cases, changes in state laws (e.g. Virginia's "Rights of the Resident" Statutory

Addition 37.1-84.1, 1974), and national legislation (e.g. the DD Act - PL 94-103, 1975). According to the President's Committee on Mental Retardation (1974), deinstitutionalization encompasses three inter-related processes: (1) the prevention of institutionalization by finding or developing community alternatives for training, living, and care, (2) return to the community of all institutionalized persons through programs of habilitation with the community, and (3) the establishment of a responsive residential environment which protects human rights and which contributes to the expeditious return of the individual to the most normal community-living alternatives. To facilitate this deinstitutionalization process the identification and selection of institutionalized individuals and those living in natural or surrogate homes without receiving training, as well as the implementation of programs and monitoring of program effectiveness for each individual during the habilitation process, have become significant professional responsibilities. According to Scheerenberger (1974), a successful program of deinstitutionalization will require institutional reform, community reform, and legislative reform to ensure that every individual receives a total developmental program individually designed to facilitate community return.

The third concept, community integration, may be defined as those measures and practices which maximize the individual's community participation (Reavis, Morrey and Hamel, 1976). Maximum integration is achieved by providing the individual the most "normal" community setting which allows him movement and communication in ways appropriate to his abilities and typical for his age. Community integration ultimately unifies the three concepts and completes the continuum of phases leading

to optimally independent community living: deinstitutionalization training is initiated on the basis of the normalization principle, leading to the goal of the process - return to the community. Table 1 represents the functional relationships between the three concepts. The predicted outcome of the application of these three concepts is the proliferation of a considerable proportion of services traditionally provided by state institutions into a community-based continuum of service delivery systems.

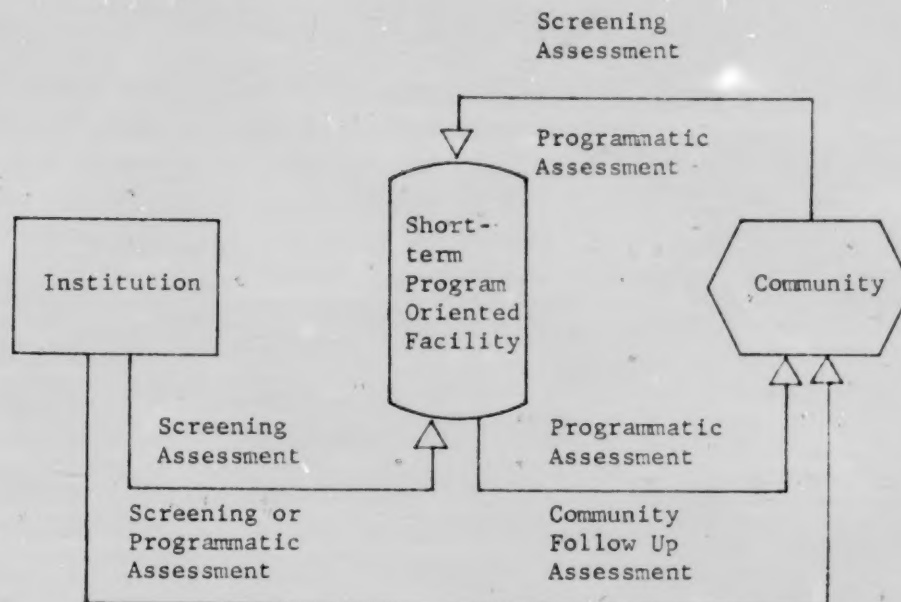
TABLE 1			
Functional Relationships Between Normalization-Deinstitutionalization-Community Integration			
Concept			
Function	Normalization	Deinstitutionalization	Community Integration
	Philosophy	Process	Goal

The Project superimposed on this conceptual framework a three-phase assessment system which traced the goal of community integration as a series of successive moves from (1) long-term institutional environments through (2) specialized short-term program-oriented habilitation facilities to (3) the least restrictive community-living and learning alternatives possible (e.g. public schools, jobs, parental or foster homes, group homes, satellite apartments, etc.). It was hypothesized that, at each of these phases, the adaption level could be characterized by a phase-specific behavior repertoire which reflects an overall functioning level. Furthermore, it was predicted that, through accurate and reliable identification of phase-specific skills and skill levels, transfer into the optimum environment could be facilitated. Figure 1

depicts the deinstitutionalization concept and the resulting process of community integration conceptualized as a three-phase assessment system.

Figure 1

Deinstitutionalization Processes as a
Three-Phase Assessment/Prescription System



It should be noted that the three living environments - institution, short-term program-oriented facility, and community - merely represent generic names for a number of possible living arrangements at a given phase. For example, the institution symbolizes the most restrictive environment and might be a large state facility or a parental home bereft of programmatic intervention. Similarly, short-term facilities may be regional centers, special classes in public schools, workshops, etc., i.e. the type of environment which emphasizes systematic training efforts.

The three-phase assessment model includes three instruments which

differ in method of assessment, as well as in the extent of the behavior repertoire and the skill complexity to be assessed, depending upon the objective of each specific stage. The first of the three instruments, the Pre-Entry Instrument, initiates the process of deinstitutionalization by identifying individuals who are currently living in restrictive environments but are immediate prospective candidates for training programs. This assumption is that there are considerable numbers of institutionalized persons for whom institutional placement is not justified and for whom the institution has become a "catch-all" for the failures of community and family to provide needed services (Begab, 1975). At the pre-entry level then, screening persons for presently available training services is the major objective. As the name, Pre-Entry Instrument, indicates, the assessments are administered while the individual still lives at the sending environment.

To accomodate phase two, the Post-Entry Instrument was developed. Here again, the name implies that the person has been identified as a potential candidate for current training and has been removed from a restrictive placement. He is participating in systematic training programs which have been designed to equip him with skills necessary for further community integration. At this phase, an instrument is necessary which directly measures entry levels to programs and behavioral gains as a function of training. The primary objective of the Post-Entry Instrument is to provide an assessment tool which serves the dual function of initial assessment and continued program monitoring.

Finally, after the goal of returning the individual directly to the community has been achieved, an instrument is needed to measure continued progress and adjustment. Life in a community-based living

arrangement is not a static end but constitutes a means for continued learning of skills. If a system respects an individual, it recognizes his preferences as the key to the decisions made within the system (Cherington and Dybwad, 1974). Community entry should not imply the termination of services, but, rather, it should guarantee the achievement of a level of normalization at which the dimension of choice has been added. A third instrument, the Community-Living Skills Profile, has been designed to measure progress and adjustment along a continuum of increasingly less restrictive community-based living alternatives.

Each of the three stages of the three-phase assessment system provides behavioral baseline data for decision-making in terms of placement alternatives and program implementation. Figure 2 represents the flow of persons and possible decisions as related to screening (Pre-Entry Instrument), programmatic (Post-Entry Instrument), and community follow-up (Community Living Skills Profile) assessments.

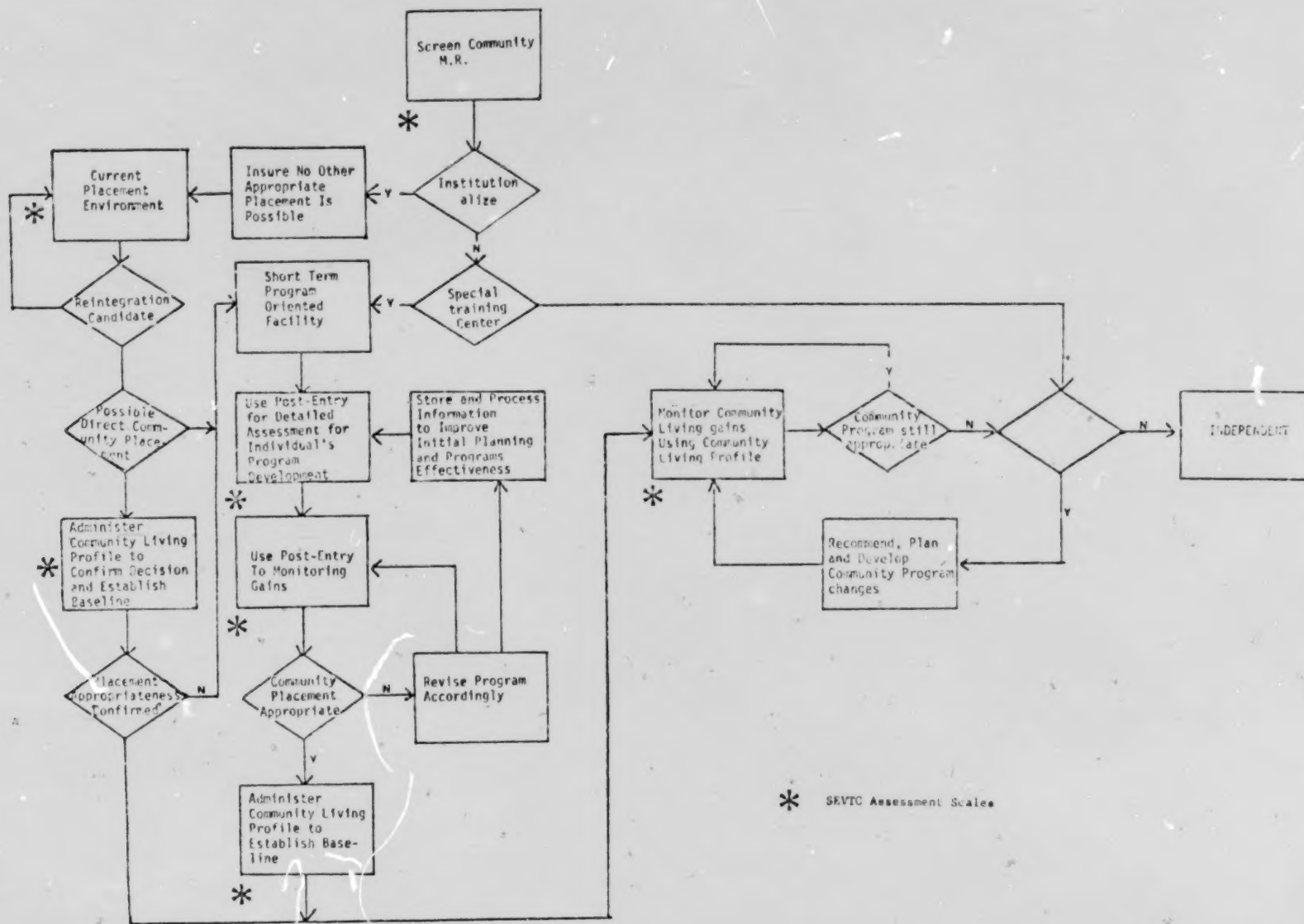
Procedures

The development of the assessment system commenced with the compiling of a large item-pool from which the final items for a given instrument were selected. As Thorndike (1971) pointed out, there is no automatic process for the production of item ideas. They must be invented or discovered, and, in these processes, chance thoughts and inspirations are important. For both the Pre- and Post-Entry Instruments, a source of item ideas was provided by task analysis of developmental and teaching program skills.

After a large number of potential test items has been written, the next step in the construction of an instrument is the collection of data as a basis for improving items and selection of the best

Figure 2

Flow of persons as related to screening (Pre-Entry Instrument), programmatic (Post-Entry Instrument) and community follow-up (Community Living Skills Profile)



* SEVTC Assessment Scales

available items to make up the experimental form of the instrument. In the case of the Pre-Entry Instrument, empirical trials in the form of a preliminary administration of the items to a small sample of individuals with mental retardation problems provided the data base for item selection (Reavis, Oksner, Hylton and Morrey, 1975). Selection of final items for the Post-Entry Instrument was based on use of ratings by professionals in the field. Subject-matter experts were asked to review and criticize the items to detect factual errors and to try to locate and eliminate at least some of the poor and inadequate items. Upon completion of the selection of the final items, an experimental form of the instrument was prepared, along with instructions for administration and scoring. After preliminary field-testing and subsequent revisions, studies were designed to establish reliability and validity.

Reliability concerns the degree to which scores obtained by different observers or raters, scores obtained by the same individuals on two different occasions, and scores obtained by the same persons with different sets of equivalent items are consistent. Regardless of the type of reliability (scorer, test-retest, or split-half reliability), each index is concerned with the degree of consistency between two independently derived sets of scores. The percentage of agreement or the correlation coefficient for the agreement between repeated measurements under similar conditions constitutes the numerical value of the reliability of the data which can be obtained with a given instrument.

A number of variables influence estimates of the instrument's reliability. For example, in test-retest reliability studies, individuals perform differently on a second administration as a function

of sensitization from the first administration. As a result, scores will be somewhat different on the second measuring occasion because of the previous exposure to the material. Similarly, if there is a time lapse between the two test dates, environmental and maturational changes come into play.

Reliability indices for the Pre-Entry Instrument were presented in the form of percentages of inter-aide agreement; i.e., the situation in which three different aides were questioned about each resident by one interviewer and the percentage of agreement among interviewers when three different interviewers questioned one aide about a particular resident. Empirical reliability studies, in the case of the Post-Entry Instrument, yielded an inter-observer, test-retest, and split-half reliability coefficient.

A second important prerequisite required for every instrument is validity, i.e. the degree to which an instrument measures what it purports to measure. The construct of validity in general refers to the accuracy with which one can make a prediction of reference from a test score (Cronbach, 1971). Validity is traditionally estimated by a correlation coefficient which expresses the relationship between the data obtained from the instrument and the data derived from specified criterion variables. Since it is meaningless to discuss validity in terms of a fixed criterion, because criteria differ depending on the purpose of the instrument, a detailed discussion of validation procedures is presented separately.

The general procedures which have been followed in developing and validating the instruments of this project basically represent simple modifications of the classical test theory model through applications

of the major theorems and assumptions of classical test theory to criterion-referenced instruments. The overall procedure outlined above applies to the development and validation of each of the three instruments. In addition, the Progress Report presented in the following chapter contains procedural details specific to the development and validation of each individual instrument.

CHAPTER II
PROGRESS REPORT
PRE- AND POST-ENTRY INSTRUMENTS

1. PRE-ENTRY INSTRUMENT

Development

The development of the Pre-Entry Instrument was the result of a review of current instruments used in mental retardation testing (Reavis, Oksner, Hylton and Morrey, 1975). Major conclusions of this review and analysis indicated that existing assessment instruments are low in reliability and require major professional investments of time and training for data that often have low correspondence to direct program implementation.

Administration and Scoring

The Pre-Entry (screening) Instrument uses a criterion-referenced, response contingent approach (Wood, 1973) to assessment. The instrument is designed as a structured interview conducted with a staff member who has worked with the person in question for a minimum of three months. It is scheduled at the individual's current living environment and takes approximately 15 minutes. The Pre-Entry Instrument examines seven skill areas: language, personal hygiene, toilet training, dressing, undressing, table behavior, and gross motor skills. To minimize the amount of time required for administration, a number of features have been incorporated in the arrangements of the items to provide check points at which the interview may be terminated in a given skill area because the answer to the item eliminates further questioning.

The first item in each area is designed to eliminate interviewing the person about skills which the individual is highly unlikely to accomplish due to severe physical or medical limitations. For example,

the answer to the question "are there any physical limitations which would interfere with talking" may be that the individual in question has a congenital defect of motor speech skills which prevent him from acquiring verbal language skills. In this situation there is no need to question the extent of his language skills (i.e. "uses conversational speech", "uses words", "uses phrases", "uses sentences") because the handicapping condition precludes the individual from speaking. If gross physical limitations do exist, the interviewer blackens the "yes" circle and specifies the type of condition on the answer sheet. If no severely handicapping physical limitations exist, the interviewer proceeds to Statement 2.

The second item is designed to expedite the interview if the individual is proficient in the particular skill area. For example, if the answer to the statement "uses conversational speech" is "true", the three qualifying statements under Statement 2 (i.e. "no help is needed in making his needs known", "speech is generally clear and distinct", "speech can be understood by a stranger") are read. If a qualifying statement is answered "true", the interviewer blackens the circle adjacent to the statement. If all three qualifying statements are marked "true", the interviewer goes directly to the next page without presenting items 3, 4, and 5. In the event that one of the statements is answered "false", Statement 3 is read.

The same procedure applies to the third item. If the answer to the statement "uses words" is marked true, it is followed up by the three qualifying items (i.e. "has at least ten words in his vocabulary", "if instructed could repeat up to three words in a row", "words spoken can be understood by most people"). Once the interview has progressed

beyond Statement 2, the remaining items, 3, 4, and 5, are always presented. Statements 4 and 5 follow the same format.

A separate answer sheet is provided which slides under the pages in the test booklet. Upon completion of the interview, the answer sheet will appear as a series of columns of darkened circles to represent the skills currently present in the individual's repertoire. The unmarked circles identify behavioral deficits for which programs are needed. The information from the answer sheet may be translated into a graph which yields the individual's Skill Profile.

In addition to the Skill Profile, two accompanying data sheets are used in the interview with the staff member. The Maladaptive Behavior Checklist gathers information regarding the type and frequency of inappropriate behaviors which are classified as self-stimulatory, aggressive, antisocial, and sexually inappropriate. The second form, entitled Independent Living Checklist, assesses the person's current skills reflecting independent functioning capabilities for community living.

The following additional information sheets are provided to collect supplementary information from existing records. They are summarized in the pre-entry result. The Personal Data Sheet contains information regarding measured intelligence and vocational history. The Parent Data Sheet gives the receiving environment some indication of parental involvement in terms of numbers of visits made by the parent to the institution or sending environment as well as the number of visits made to the home by the individual. The Medical Data Sheet contains a brief summary of current medication, special diet, and medical or physical problems. The Program Participation Checklist yields basic descriptive information as well as a record of training programs which the individual

has participated in during the six months before the date of the interview. Finally, the Interviewer Interaction Checklist is provided to guide the interviewer in a brief personal exchange with the individual. The major purpose of this form is to give the interviewer an opportunity to meet the individual being assessed and note his reaction. These seven forms, along with the Skill Profile, provide the basic information from which decisions regarding placement and program implementation can be made reliably and efficiently.

Sample Population

The original sample population of the Pre-Entry Instrument consisted of 26 male and 23 female severely/profoundly retarded residents living at Southside Virginia Training Center, Petersburg, Virginia.

Reliability

After formative testing at a short-term, private residential facility for the mentally retarded and emotionally disturbed, major field-testing for reliability was conducted at Southside Virginia Training Center in Petersburg, Virginia, with 49 persons. Reliability was established in terms of two indices: (a) inter-aide percentage of agreement, which refers to the situation in which three different aides were questioned by one interviewer about each resident, and (b) inter-interviewer percentage of agreement which refers to the situation in which three different interviewers questioned the same aide about each resident. A criterion level of 80% agreement was established as the desired reliability index for each item. Inter-aide percentage of agreement reached or exceeded the 80% criterion level on 34 out of 40 items on the Maladaptive Behavior Checklist and 15 of the 18 items on

the Independent Living Checklist. The data indicated that the information was reliable and stable over a three-month period of time.

To gain information regarding the "half-life" of the Pre-Entry Instrument, a second retest was conducted six months after the original field test. Table 2 represents the six-month comparison of pre-entry data for the Skill Profile, Table 3 for the Maladaptive Behavior Checklist, and Table 4 for the Independent Living Skills Checklist. In analyzing the data, the results from the two field tests were pooled for a summary due to the considerable population attrition. The first six-month retest was conducted in July, 1975, and the data compared with the results of the original field test in January, 1975. A second six-month retest was conducted in September, 1975, in order to compare the data collected then with data gathered in March, 1975. Inter-aide reliability exceeded the 80% criterion level on 25 of the 40 items on the Skill Profile and inter-interviewer reliability exceeded criterion level on 37 items. In the case of the Maladaptive Behavior Checklist, measured agreement among aides reached criterion level on 18 of the 27 items, while assessments from three different interviewers showed a percentage of agreement of 80% and above on 19 items. Finally, on the Independent Living Checklist, agreement among aides reached criterion level on 9 of the 16 items assessed, and agreement among interviewers was established on 13 items at or above criterion level.

The results from the combined field tests indicated that if the time interval between assessment dates exceeded a three-month period, variances within a set of assessments arose from a number of sources. These include changing levels of ability as a function of maturation and training. In the case of the Pre-Entry Instrument, general, as

TABLE 2

ANALYSIS OF STABILITY OF PRE-ENTRY DATA BY ITEMS
OVER SIX-MONTH PERIOD
SKILL PROFILE

Skill	# of Residents Compared	Inter-Aide % of Total Agreement	# of Residents Compared	Inter-Interviewer % of Total Agreement
<u>Language</u>				
1	11	100.00	17	91.84
2	11	56.25	17	81.63
3	11	71.88	17	100.00
4	11	56.25	17	100.00
5	11	71.88	17	93.88
<u>Vocational Readiness</u>				
6	11	100.00	17	91.67
7	11	55.00	17	62.50
8	11	63.64	17	91.43
9	11	46.15	17	83.78
10	11	57.14	17	83.72
<u>Personal Hygiene</u>				
11	11	100.00	17	100.00
12	11	73.08	17	83.89
13	11	89.29	17	97.83
14	11	60.71	17	93.48
15	11	65.22	17	93.02
<u>Toilet Training</u>				
16	11	100.00	17	100.00
17	11	74.19	17	100.00
18	11	93.55	17	100.00
19	11	93.33	17	100.00
20	11	96.55	17	100.00
<u>Dressing</u>				
21	11	96.67	17	97.96
22	11	62.96	17	82.98
23	11	96.67	17	98.00
24	11	57.14	17	87.50
25	11	45.83	17	86.67
<u>Undressing</u>				
26	11	100.00	17	97.96
27	11	87.10	17	100.00
28	11	90.32	17	100.00
29	11	96.83	17	100.00
30	11	93.55	17	100.00
<u>Table Behavior</u>				
31	11	96.67	17	95.92
32	11	25.00	17	91.49
33	11	84.38	17	100.00
34	11	27.27	17	95.56
35	11	87.50	17	97.96
<u>Gross Motor Skills</u>				
36	11	100.00	17	87.76
37	11	87.50	17	91.84
38	11	93.75	17	100.00
39	11	93.75	17	100.00
40	11	87.50	17	97.96

TABLE 3
ANALYSIS OF STABILITY OF PRE-ENTRY DATA BY ITEMS
OVER SIX-MONTH PERIOD
MALADAPTIVE BEHAVIOR CHECKLIST

Skill	# of Residents Compared	Inter-Aide % of Total Agreement	# of Residents Compared	Inter-Interviewer % of Total Agreement
<u>Self-Stimulation</u>				
1	11	96.43	17	87.50
2	11	92.86	17	91.67
3	11	82.76	17	97.92
4	11		17	93.33
5	11	77.78	17	70.21
6	11	94.12	17	95.74
7	11	82.35	17	97.87
8	11	84.62	17	93.62
<u>Aggression</u>				
1	11	85.71	17	95.83
2	11	85.71	17	97.92
3	11	61.54	17	64.58
4	11		17	97.78
5	11	94.12	17	100.00
6	11	100.00	17	100.00
7	11	58.82	17	97.87
8	11	47.06	17	80.85
<u>Sexual</u>				
1	11	88.46	17	89.58
2	11	87.10	17	100.00
3	11	100.00	17	100.00
<u>Social</u>				
1	11		17	95.45
2	11	87.10	17	100.00
3	11	94.12	17	95.74
4	11	75.00	17	100.00
5	11	100.00	17	100.00
6	11	100.00	17	95.74
7	11		17	97.78
8	11		17	82.22

TABLE 4

ANALYSIS OF STABILITY OF PRE-ENTRY DATA BY ITEMS
OVER SIX-MONTH PERIOD
INDEPENDENT LIVING CHECKLIST

Skill	# of Residents Compared	Inter-Aide % of Total Agreement	# of Residents Compared	Inter-Interviewer % of Total Agreement
<u>Social Relationships</u>				
1	11	94.12	17	68.42
2	11	82.24	17	82.61
3	11	86.67	17	89.36
4	11	76.47	17	76.19
5	11		17	97.73
<u>Self-Direction</u>				
1	11	44.44	17	86.05
2	11	66.67	17	93.02
3	11	93.33	17	100.00
4	11	82.35	17	97.87
5	11	100.00	17	100.00
<u>Travel Abilities</u>				
1	11	80.00	17	76.92
2	11	66.67	17	100.00
3	11	75.00	17	100.00
<u>Communications</u>				
1	11	61.54	17	95.24
2	11	94.12	17	95.56
3	11	75.00	17	75.00

well as specific and temporary sources of variation, were operating. For example, residents of the sample population had been exposed to fundamental changes in the physical environment in addition to consistent involvement in training programs. Consequently, changes in skill levels were not only expected but desirable, because the magnitude of environmental changes and the impact of programmatic intervention were relevant intervening experiences.

The overall results of the six-month retest were consistent with research regarding various other instruments, including achievement, aptitude, and personality tests, which generally indicate that, as the time period between testing dates increases, agreement of correlation between the two sets of data decreases (Anastasi, 1976).

Pre-Entry Assessments Conducted by Telephone

Reavis, Oksner, Hylton, and Morrey (1975) also suggested that the Pre-Entry Instrument, due to its ease of administration and scoring, potentially could be employed for telephone-conducted interview assessments. This hypothesis was empirically investigated in September, 1975. A sample of 30 residents was randomly selected from the population of Southside Virginia Training Center, Petersburg, Virginia. After the interviews had been scheduled at the institution, telephone contact was made by SEVTC Social Services Department with a staff member who met the requirement of having worked with the resident to be assessed for a minimum period of three months. Using the Skill Profile, Maladaptive Behavior Checklist, and Independent Living Checklist, the assessment interview was conducted by phone and recorded by a social worker at SEVTC. A week after the telephone interviews, project staff personally conducted the interviews again at Southside Virginia Training Center,

Petersburg, with the same aides who had been questioned over the telephone.

The data were analyzed, using a chi-square test. Results indicated there were no differences between telephone and face-to-face interviews. Table 5 represents the analysis of this comparison.

TABLE 5
(n = 30)

Pre-Entry Instrument: Telephone vs. Personal Assessments

<u>Form</u>	<u>χ^2</u>
Skill Profile	23.75*
Maladaptive Behavior Checklist	13.28
Independent Living Checklist	23.56

*The results were nonsignificant between telephone and personal interviews = 49.59, 29 df, $P < .01$

Since the reliability of telephone assessments has been empirically established, telephone assessments with the Pre-Entry Instrument are now conducted on a regular basis by SEVTC Social Services staff to screen potential transfer candidates at Southside Virginia Training Center, Petersburg, and Lynchburg Training School and Hospital, Lynchburg. Between September, 1975, and April, 1976, over 100 institutionalized residents have been screened via telephone.

Revisions

Data from the field-testing with the Pre-Entry Instrument indicated the necessity for a number of revisions in both content and physical format. The major change in content involved the deletion of items assessing vocational readiness. Continued collection of pre-entry data revealed that aide knowledge regarding vocational skills was not

reliable and that the skills involved would be more appropriately assessed at a time closer to the individual's transfer to a vocational training program.

The physical format of the Pre-Entry Instrument has undergone major revisions to facilitate its use by various professionals. In its revised form, the Pre-Entry Instrument consists of an easily handled test booklet of standard 8 1/2 x 11" size. The page layout uses vertical columns of circular holes, with a separate page reserved for each of the seven skill areas assessed. A single separate answer sheet which slides under the pages in the test booklet is provided for responses to the items. The use of a booklet with separate answer sheets has considerable advantages as far as economy is concerned, since the booklet can be used numerous times and the scoring process can be carried out more efficiently. Presently, the scoring is done by hand; however, the answer sheet easily can be adapted for machine scoring. (Sample pages of the revised form of the Pre-Entry Instrument are reproduced in Appendix A).

Another area of revision concerned the name of the instrument. During the first year of the project, the Pre-Entry Instrument was referred to as AIM (Assessment Interview Method) to describe the procedure by which the information is collected. However, as new data were gathered and especially as the development of the Post-Entry Instrument progressed, the need for a composite title encompassing all three instruments of the proposed system became apparent. Specifically, a title was needed which not only gave an indication of the purpose of the instruments but also reflected the underlying philosophy. Consequently, the underlying normalization - community integration

model was adopted as the generic name in "SEVTC Assessment Scales for Community Integration of Severely/Profoundly Handicapped". The components of the three-phase assessment system are identified in general terms as

- | | |
|----------|---|
| Part I | Pre-Entry Screening (Pre-Entry Instrument) |
| Part II | Post-Entry Monitoring (Post-Entry Instrument) |
| Part III | Community Follow-Up (Community Living Skills Profile) |

The Pre-Entry Instrument is intended as a screening device which maximizes time efficiency. The instrument does not attempt to yield a complete picture of the individual but attempts to provide data relevant to decision-making, based on analysis of skills and skill levels for community and/or training center entry. Once the individual has been identified as a prospective candidate for the intensive, systematic training available at short-term, specialized community facilities, the Post-Entry Instrument will be administered. This is an extensive, observation-based assessment tool to measure individual competence in five behavioral domains: motor development, self-help/independent living, language, cognitive, socialization. For those individuals who are not immediately transferred following pre-entry screening, the information collected during the interview provides data instrumental for programmatic placement decisions at the sending environment.

2. POST-ENTRY INSTRUMENT

Development

Once the transfer from the sending environment to a training center or community-based program has been accomplished, the first step of the three-phase community integration model has been completed. The individual now finds himself in an environment which emphasizes a more systematic exposure to training in accordance with his skill

levels. As community integration becomes a major priority in mental retardation, a detailed instrument which allows not only the gathering of reliable and valid information regarding the individual's observed level of functioning, but which also makes provisions for monitoring behavioral changes resulting from programmatic intervention is necessary. It is at this intermediate stage of the integration process that the individual acquires the fundamental skills necessary for success in a less restrictive community setting. Consequently, only continuous assessment and monitoring can facilitate the detection and remediation of skill deficits before the person moves into less restrictive community environments.

Thus, the primary objective at the post-entry level was to develop and validate an extensive observation-based instrument sensitive enough to measure relatively small behavioral changes. The accomplishment of this objective required the development of an instrument which would encompass a wide range of behaviors. While the Pre-Entry Instrument was intended primarily as a screening device with major emphasis on basic motor, self-help, and communication skills, the emphasis at the post-entry level shifts to more specific behaviors over a wider range of performance areas, including social, academic/cognitive, and language competence.

In addition to the considerable expansion of the number of behaviors to be assessed, the method by which the assessment information was collected changes in transition from the pre- to post-entry level, i.e., from the interview method to direct observation. For the pre-entry screening, an interview method was most efficient in terms of time and minimal interference with the sending environment. However,

a change in the information-gathering system became necessary when the individual moved to a more intense training situation. Here, it was essential that a reliable assessment procedure be developed for evaluating the acquisition of a complex behavioral repertoire and for monitoring behavioral changes resulting from the systematic training programs. Direct observation of the individual was considered the most effective way to obtain the record of behavior necessary for program decision-making. Typically, behavior that was the object of observation tended to be naturally instigated, and the individuals observed were watched for longer periods of time in varied circumstances. Observational studies, almost by definition, are more concerned with public, visible, external events and less so with covert processes.

At the intermediate stage of community integration, the observational method seemed particularly appropriate because data collected this way are usually recorded in molar units and are, therefore, directly transferable to practical situations (Baumrind, 1964). Thus the Post-Entry Instrument uses the observational method in a criterion-referenced approach to measurement, with emphasis on identifying individual performance levels relative to a prespecified criterion.

The first step in the developmental sequence of constructing the Post-Entry Instrument was to compile a preliminary item-pool representing the various competencies. A set of more than 300 training programs being validated at SEVTC supplied the basic working definitions for behavioral objectives. Using the terminal behaviors from training programs for the general competency statement, criterion item-statements were generated to define each behavior operationally as "the resident does" (followed by a verb of action such as "Reaches for the Object")

to provide the observable characteristics of the skill being assessed. Writing criterion-referenced test items was guided by the rule of making sure the item was an accurate criterion behavior. Specifically, the domain of relevant test responses needed to be defined, and the situations in which they should be required had to be delineated. As Popham and Husek (1969) stated, whether items are meant to be difficult or easy, discriminating or nondiscriminating, the important requirement is to make the item represent the class of behaviors outlined by the criterion.

In writing the test items, the following objectives were considered desirable for all items. (1) The classes of behaviors that define different performance levels should be specified as clearly as possible. (2) Each behavior class should be defined by a set of situations in which the behaviors can be displayed in terms of graded variations. (3) The obtained score must be capable of expressing the individual's performance characteristics objectively and meaningfully in the classes of behavior. Thus, given that certain terminal outcomes such as the attainment of a specific level of functioning were desired and a training sequence had been identified, items were necessary which maximized the accomplishment at each point in the training sequence until the terminal learning was attained.

After the original item-pool derived from SEVTC training programs had been composed, the items were grouped into six behavioral categories which represented the six developmental areas making up the subscales of the Post-Entry Instrument: motor development, self-help, independent living, academic, language, and socialization. These developmental areas were to become the organizational system for arranging items into separate subscales. In addition to being

categorized into developmental areas, items were also arranged in hierarchical order ranging from Level I, representing characteristic behaviors of the minimally functioning individual, to Level VIII, which is characteristic of more independently functioning persons.

In order to provide a meaningful framework for the eight-level hierarchy, each level was tentatively equated with a different degree of community-living independence. Table 6 depicts the eight levels, scaled to living alternatives of increasing complexity.

After the items had been categorized into subscales across six developmental areas with level of functioning, a group of independent raters consisting of special educators and psychologists were asked to rate the adequacy of each item in terms of its relevance to a given developmental area and its importance for a defined level of independence. These raters were aware of the SEVTC program but were not directly involved in the project.

In order to facilitate the rater's task in making his judgements, the following materials were provided for his convenience: (a) a list of criterion behaviors for each of the six developmental areas which were considered as potential items and (b) a description of the eight levels which made allowances for each criterion behavior to be rated. Using the area of motor development as an example, Table 7 is presented to illustrate the procedure employed in rating the items.

As Table 7 indicates, the criterion behaviors were deliberately listed in random order to avoid implications of an underlying ordinal sequence. From the list of criterion behaviors provided for each area, the raters selected items according to appropriate levels. The description of Levels III through VIII is the same as in Table 6.

TABLE 6

Equating Levels of Functioning with Potential Living
Alternatives Open to Individuals with Mental Retardation Problems

LEVEL	LIVING ALTERNATIVES
I	Requires continuous care and medical support; often non-ambulatory.
II	Institutionalized; takes care of some basic needs with assistance (for example, self-help skills such as eating, dressing, toilet training; dependent upon supervision for daily activities; benefits from specialized one-to-one and group training programs.
III	Takes care of all his personal needs independently; moves about residential facility or house without assistance; functions in group-teaching activities and profits from prevocational training programs.
IV	Lives in training center facility, can possibly work in a sheltered workshop; is generally dependent upon continuing supervision and quasi-sheltered living.
V	Lives in highly structured group home with programs for continuing development of social and academic skills; functions in special employment settings such as sheltered workshops; needs supervision in management of his personal affairs (money, work schedule, transportation); if child can, attends special classes in public schools.
VI	Lives in group home; employed in special employment setting; receives salary and on-the-job training; functions independently; needs continuing support and supervision in management of personal affairs; if child can, attends special classes.
VII	Lives in group home; employed in community; receives salary and on-the-job training; needs less support in management of social affairs; if child can, attends public school in remedial classes.
VIII	Lives in satellite apartment of own house, employed in community; capable of effective social and economic functioning in "normal environment", if child can, attends regular classroom in public schools.

TABLE 7

Example of Rating Procedure from
the Motor Development Subscale

Stands for 5 minutes with assistance
Rolls ball 2 feet from sitting position
Sits for 5 minutes without assistance
Reaches toward object
Grasps object within reach
Throws ball forward hitting target on wall
Stands on heels 5 seconds without assistance
Walks between balance beams
Walks up/down stairs, feet alternating
Imitates arm movements
Imitates arm movements in water
Puts shapes into multi-shape box
Skips 10 feet
Bats ball 5 out of 7 times
Walks over balance beams
Jumps over small obstacle
Completes 10-piece puzzle
Runs 25 feet
Swims 2 laps using front and back stroke
Uses handtools (screwdriver, wrench, saw)
Paints picture with numbers up to 50
Assembles wood or plastic kits

LIVING ALTERNATIVE	MOTOR DEVELOPMENT	
	Behavior	Rating
Level I Requires continuous care and medical support; often non-ambulatory.	<i>Rolls ball</i>	<i>4.5</i>
Level II Institutionalized, takes care of basic needs with assistance (self-help skills: eating, dressing, toilet trained), dependent upon supervision for daily activities; maintains interpersonal relationships with staff and residents; benefits from specialized one-to-one and group training programs.	<i>44</i>	

Finally, the raters were supplied with a general grid to demonstrate the overall arrangement of post-entry items (see Table 8). It was intended that each level within each developmental area would be represented by five items.

TABLE 8

Overall Layout of the Post-Entry Instrument

Level of Performance	Motor Development	Self-Help	Independent Living	Academic	Language	Socialization
VIII						
VII						
VI						
V						
IV						
III						
II						
I						

A five point scale was used (1 = very unimportant, 2 = unimportant, 3 = neutral, 4 = important, 5 = very important). In addition, each rater was asked to add behaviors which were not listed originally, but which he believed to be critical prerequisites for a given level. Table 9 provides an example of the actual rating.

Upon receipt of all the ratings, actual assignment of items into appropriate levels proceeded as follows: target behavior ratings were combined for raters ($n = 6$); and, means, standard deviations, and ranks were computed for each target behavior. Those behaviors which had the highest means, lowest standard deviations, and almost identical ranks across raters were chosen as subscale items to represent

a given developmental area at a specified level. Table 9 provides an example of ratings taken from Motor Development.

TABLE 9
Example of Behavioral Ratings as
Returned by the Group of Independent Raters

Level 1

Behavior	R ₁	R ₂	R ₃	R ₄	R ₅	R ₆
1. Stands for 5 minutes with assistance	5	5	4	3	4	5
2. Rolls ball 2 feet from sitting position	4		3	3	2	4
3. Sits for 5 minutes without assistance	5	5	4	3	4	
4. Reaches toward object	5	5	4	4		5
5. Imitates arm movements	5		4	4		
6. Stands on heels without assistance			4	3		4
7. Imitates arm movements in H ₂ O				2		

Based on these ratings, items 1, 3, 4 and 6 appear on the Post-Entry Instrument as Level I, Motor Development items.

This rating procedure led to a number of results. First of all, a number of inappropriate and ambiguous items were eliminated, thereby reducing the scope of later, more costly revisions. Secondly, it was obvious that some major modifications in developmental areas, as well as in the number of levels, were necessary. The goal in item selection was to cover a wide range of behaviors representative of a given developmental area, while, at the same time, maintaining a manageable number of categories. In order to produce a well-balanced instrument for measuring each developmental area, it was desirable to include an equal number of items (five) in each content area and

at each level. However, based on the returned ratings, this was clearly impossible. For example, in the area of Self-Help, there were no items representing Levels VI, VII, and VIII. Similarly, in the area of Independent Living the lower levels (I and II) were not represented. In order to maintain a rational hierarchy, these two areas were collapsed into one developmental area (Self-Help/Independent Living), in which self-help skills such as eating, dressing, and toileting occupy the lower levels (I - III) and lead gradually into Independent Living items such as preparing meals or telling the time (Levels IV and V).

The third major modification involved a reduction of the number of levels, since there was no agreement at all among independent raters as to what the differentiating characteristics and prerequisites at Levels VI, VII, and VIII would be. Table 10, taken from Independent Living data, provides an example of this lack of agreement.

As a result of this procedure, a five-level scale was adopted in which the developmental progression from level to level is more clearly defined.

Following analysis of the ratings and appropriate modification of the items, an experimental draft was assembled. It consisted of five subscales in the following behavioral categories: motor development, self-help/independent living, academic, language, and socialization. Each subscale is divided into five levels with five items each, for a total of 125 items.

The item format was designed so that each item appears as a behavioral objective, e.g. "Puts shapes into multi-shape box". The item itself is followed by a descriptive paragraph containing the

TABLE 10

Example of Behavioral Ratings Demonstrating
Independent Living Items

Level VI

Behavior	R ₁	R ₂	R ₃	R ₄	R ₅	R ₆
1. Cooks with receipe and assistance	4			4		
2. Uses non-fare means of transportation	5					4
3. Locates phone numbers in phone book	4					
4. Uses time clock for scheduled activities	5		3		5	3
5. Attends scheduled leisure activities	5	3				
6. Writes 5-word sentence	5		4	4		
7. Fills in biographical information independently	5	4		5		
8. Solves simple problems with divisions and fractions	5					
9. Completes simple description of daily activities	3					
10. Washes and dries clothes and returns them to storage		4			4	
11. Shops at appropriate stores for clothing, groceries, hardware, etc.		4		5		
12. Uses fire extinguisher		3			5	
13. Uses services of police and fire department		3			5	
14. Follows receipe independently		3	4			5
15. Prepares meals independently		5			5	

specific conditions under which the observations are to be made and clearly specified criteria to guide the observer in making behavior decisions. In addition to standardizing the conditions under which the behaviors are to be observed, the cues to be used to elicit the behavior also have been standardized. It was anticipated that, by providing this set of standardized guidelines, reliability would be greatly increased.

Criterion behaviors can be observed under one of the following stimulus conditions:

- SI - self-initiated; i.e., the individual independently performs the skill without being cued.
- VC - verbal cue which is specified for each item where appropriate.
- MC - modeling cue; i.e., the observer models and performs the desired behavior. Modeling cues are always followed by a repetition of the verbal cue.
- PC - physical cue; i.e., the observer initiates the behavior using physical guidance. Again, the physical cue is always followed by a repetition of the verbal cue. This type of prompting is often referred to as graduated guidance training (Azrin and Foxx, 1971).
- N - no response; i.e., the person fails to make an observable response, even after the behavior has been initiated for him.

As the individual progresses to higher levels of functioning, the modeling and physical cues are faded out gradually. By the time Level IV is mastered, physical cues are no longer used to elicit a given behavior. The rationale behind this is that the higher levels of functioning indicate greater readiness for community living, which generally requires responsiveness to verbal or visual cues without additional prompting. Although modeling and physical cueing are an integral part of a training environment, they usually are not given outside of a teaching context where the individual is expected to

perform on his own. Therefore, at Level V, the responses are recorded as "all or none" behaviors. By the time Level V behaviors are being learned, the individual should be well on his way to a community setting. It should be noted that this dichotomous recording of responses reduces the instrument's sensitivity as a monitoring device as it becomes a more direct measure of skill which should be refined in a community program. This fading out of cues is most apparent on the answer sheets. Sample pages of the answer sheet are presented in Appendix B.

The Post-Entry Instrument relies primarily on direct observation of the individual in question and, therefore, requires his participation in the assessment process. However, there are some items which can be, and are, assessed on the basis of indirect reports gathered from a person who has worked with this individual for a minimum of at least three months. This was necessary for items such as "assumes responsibility" for which it is difficult to stage an event which could be directly and immediately observed and would be valid. Sample pages from different subscales of the Post-Entry Instrument and its accompanying answer sheets are provided in Appendix B.

Scoring

A scoring sheet was developed for each developmental area (subscale). For general baseline assessment, observation commences with Item One, Level I. Depending upon the level at which the resident performs the behavior (self-initiated; or with verbal, modeling or physical cues), the observer blackens the appropriate circle to indicate performance level, based on the type of cue required to elicit the criterion behavior. The score associated with each

performance level appears directly below the circle.

To arrive at the total score for a given level, the scores corresponding to each circle checked are added, and the total number is entered in the box labeled "Level Score" at the bottom of each level. Another score, the "Total Number of Criterion Behaviors Performed", refers simply to how many of the five possible behaviors within a given level were observed but disregards the type of cue required. Finally, by adding all the scores obtained for each individual level, a total score is computed for the total skill competency in that area. The total scores for each developmental area are plotted on a graph which will yield the individual's Program Assessment Profile.

The scores derived from the Post-Entry Instrument are intended to be interpreted in a flexible, pragmatic manner rather than in terms of an abstract number. For example, an individual obtaining a score of 45 on the Motor Development subscale is best described in terms of the motor skills he has mastered (e.g. he can sit, stand, walk, and jump) and in terms of the motor programs that need to be implemented to reach the next higher level of functioning (e.g. programs teaching the individual to run, climb, catch a ball, etc.) Thus, interpreting a given score follows a dichotomized statement in terms of mastery and deficit skills. A data sheet is provided for summarizing and interpreting scores accordingly (see Appendix B). On the basis of the score obtained, a number of target areas can be recommended for training. After directing the attention of training staff to those particular skill areas which received the lowest score in the overall profile, training programs can be implemented which

raise the individual's skill level. In general, scores are not intended to be reported for their numerical value but should always be interpreted in the contexts of skills already acquired and skills which need to be developed. Data sheets used in conjunction with the Post-Entry Instrument are described in Appendix B.

Sample Population

The Post-Entry Instrument was developed and validated on the resident population of Southeastern Virginia Training Center for the Mentally Retarded, Chesapeake, Virginia. Table 11 describes the general characteristics of the sample population. The number of residents who participated in the different field tests varied slightly because of new admissions, residents being on convalescent leave, field trips, special programs, etc.

Reliability

Classical psychometric theory usually approaches reliability in terms of parallel forms, internal consistency, and test-retest reliabilities as conceptually distinct indices of measurement precision. Users of observational data traditionally have been concerned with inter-observer agreement as an index of reliability which is conceptually close to parallel forms. Since the Post-Entry Instrument combines the criterion-referenced approach to measurement with basic psychometric prerequisites as established by classical test theory, three field tests were scheduled to determine three different indices of reliability: (1) an inter-observer coefficient, (2) a test-retest coefficient, and (3) a split-half coefficient. The most common empirical estimate of the integrity of observation-based data is

Table 11

SEVTC POPULATION DISTRIBUTION

(By SEX by AGE by LEVEL OF MENTAL RETARDATION by
length of time in residence expressed as greater
or less than six months.) (6M)

SEX	MR LEVEL	MILD			MODERATE			SEVERE			PROFOUND			By Age Total
	AGE	<6m	>6m	Σ	<6m	>6m	Σ	<6m	>6m	Σ	<6m	>6m	Σ	
M A L E	0-6										1		1	1
	7-12							3	1	4	2		2	6
	13-21	1	3	4	2	5	7	3	7	10		3	3	24
	22-35					4	4		4	4		1	1	9
	36-45								1	1		1	1	2
	46-55					1	1		1	1				2
	56+							1		1				1
	total	1	3	4	2	10	12	7	14	21	2	6	8	45
F E M A L E	0-6										1		1	1
	7-12								1	1		1	1	2
	13-21					3	3		4	4				7
	22-35				2	4	6	1	7	8				14
	36-45				1	2	3							3
	46-55							1		1				1
	56+													
	total				3	9	12	2	12	14		2	2	26
TOTAL by AGE by LEVEL	0-6										2		2	2
	7-12							3	2	5	2	1	3	8
	13-21	1	3	4	2	8	10	3	11	14		3	3	31
	22-35				2	8	10	1	11	12		1	1	23
	36-45				1	2	3		1	1				5
	46-55					1	1	1	1	2				3
	55+							1		1				1
	total	1	3	4	5	19	24	9	26	35	2	8	10	73

certainly inter-observer reliability, which is based on the ability of two or more observers to record the same information while independently observing the same individual.

A preliminary field test with a small sample ($n = 12$) was scheduled in December, 1975; (12/28 - 12/31) to try out the instrument. The results were highly encouraging, with a coefficient of .96 for a total score correlation between two observers. This indicated the instrument was ready for large scale reliability testing.

Consequently, the first large field-test to establish inter-observer reliability was scheduled. It was conducted by Project staff in January, 1976, (1/22 - 1/28) with 73 SEVTC residents. Training for the observers consisted of a half day of training, with subsequent supervisor response to questions which arose during the preliminary field test. To minimize recording bias, the observers selected were persons who normally worked in a different capacity at SEVTC and who had no involvement with the residents. Furthermore, to rule out error which might be introduced by actual changes in the target individual or in his environment, these dual observations were conducted independently on consecutive days. This method, rather than simultaneous observation, was chosen to provide information regarding the possible effects of the observers' personal characteristics and delivery techniques, deficiencies in item objectivity, and errors in recording observations. The results are presented in the form of a composite correlation matrix in Table 12.

As was anticipated, the results of this first reliability study supported the hypothesis that standardization of the situation in which the behavior is to be observed, as well as rigid standardization

TABLE 12
Inter-Observer Correlation Matrix
(n = 73 pairs of observations)

Observer 2	Observer 1					
	Total Score	Motor Develop.	Self-Help/ Inde. Living	Academic	Language	Socialization
Total Score	.933					
Motor Development		.969				
Self-Help/ Inde. Living			.989			
Academic				.995		
Language					.986	
Socialization						.982

of the various cues and criterion performances, contributed to the high inter-observer correlations.

Since post-entry assessments are not only designed to measure the individual's level of functioning but also to identify program-entry levels, the usefulness of the instrument as an assessment tool depends heavily on the reliability of scores. This reliability is critical for clear interpretation of behavioral observations. Therefore, it seemed desirable to compute additional indices of reliability, especially in view of the fact that behavioral recordings, like all other measurements, are subject to potential biases. The observer himself is one source of bias and should be regarded as an experimental factor which must not be confounded with experimental conditions (O'Leary and Kent, 1973). Consequently, two additional indices

of reliability were computed. The first of these was a test-retest coefficient, which is simply the correlation between the scores obtained by the same person on two administrations of the instrument. Retest reliability shows the extent to which scores on a given instrument can be generalized over different occasions; the higher the reliability, the less susceptible the scores are to random changes in the condition of the individual being assessed or of the assessment environment.

An important aspect of retest coefficients concerns the length of the time interval which is allowed to elapse between the two assessment dates. It has generally been found that retest coefficients decrease progressively as the interval lengthens (Anastasi, 1976). It also has been recommended that, when testing young children and individuals with mental retardation problems whose mental ages are similar to those of children, the interval should be shorter than for older or normal people, since progressive developmental changes are discernable over a period of a month or even less because maturation progresses faster at the younger ages.

Consequently, two weeks after the initial field-test, the second field-test was conducted to determine test-retest reliability using the same observers who collected the information initially. Again the results are presented in a correlation matrix in Table 13. While the overall correlations are somewhat lower, as in the inter-observer conditions, this effect is accounted for by the fact that some residents were able to benefit from practice during the first exposure to a given item, thereby displaying the typical pretest sensitization.

TABLE 13
Test-Retest Correlation Matrix
(n = 69)

		Observation 1				
Observation 1	Total Score	Motor Develop.	Self-Help/ Inde. Living	Academic	Language	Socialization
Total Score	.988					
Motor Development		.939				
Self-Help/ Inde. Living			.967			
Academic				.981		
Language					.955	
Socialization						.946

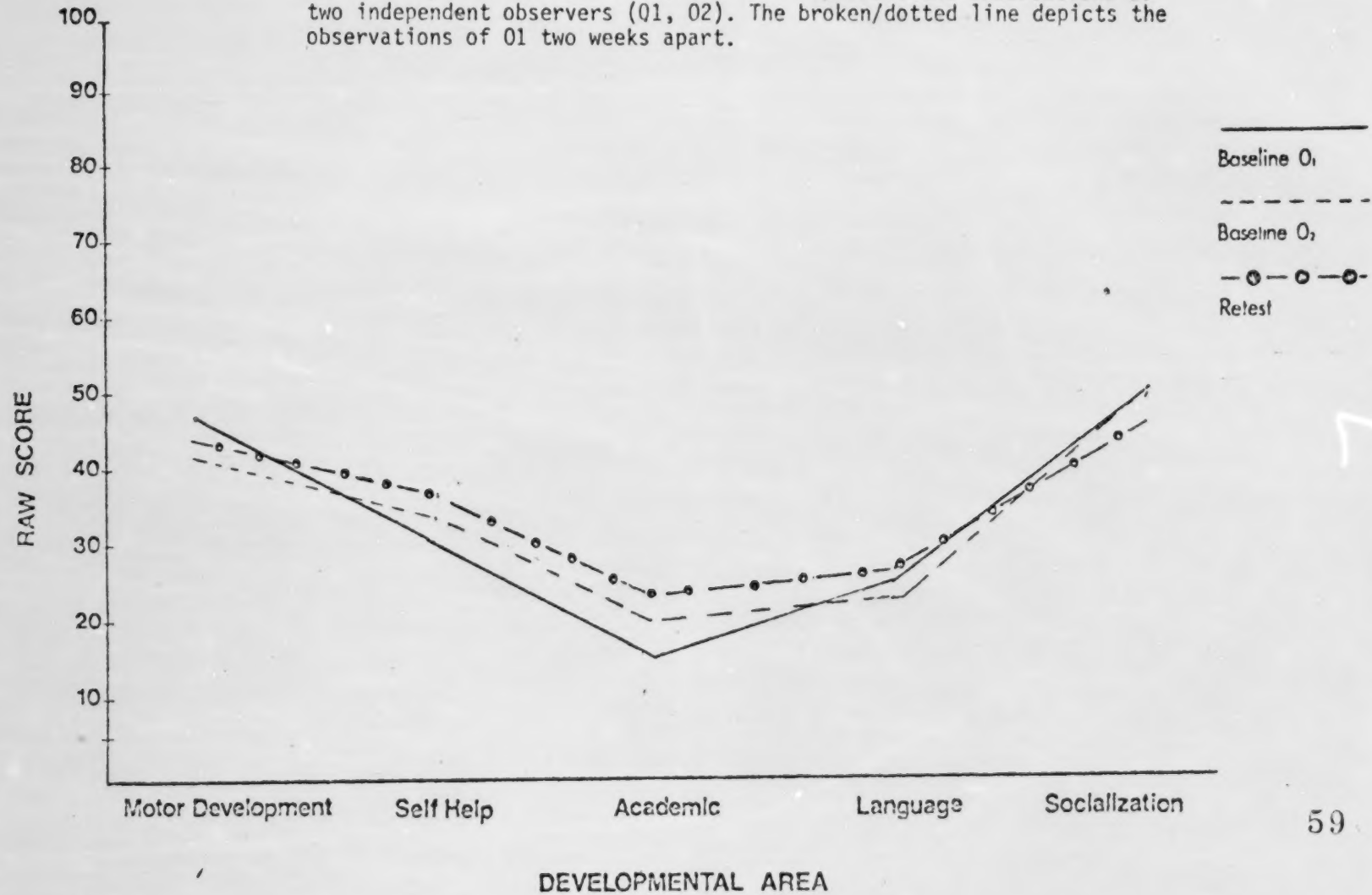
Figure 3 depicts a typical example of observations collected for reliability purposes. The solid and broken lines represent observations by two independent observers and the broken/dotted line represents the observations of the same observer collected two weeks apart.

Finally, as a third index of reliability, a split-half coefficient was computed, based on observations of a single observer. These observations were tabulated for analysis in a manner similar to odd-even item correlations. In order to arrive at the coefficient, two scores were obtained for each individual by dividing the Post-Entry Instrument in equal halves. Since each level consists of five items, thereby favoring the odd items, the first item of each level was used as a constant and added to the score of odd and even items. It is apparent that split-half reliability provides a measure of

FIGURE 3

PROGRAM ASSESSMENT PROFILE

Reliability: The broken and solid lines represent the observations of two independent observers (O1, O2). The broken/dotted line depicts the observations of O1 two weeks apart.



consistency with regard to content sampling. Temporal stability of the scores does not enter into such reliability, because the coefficient is derived from a single administration. The odd-even split serves mainly as a check of the interval consistency of items. The results from this split-half analysis are presented in Table 14.

TABLE 14
Split-Half Reliability Correlation Matrix
(n = 94)

Even Items	Odd Items				
	Motor Development	Self-Help/Inde. Living	Academic	Language	Socialization
Motor Development	.978				
Self-Help/Inde. Living		.960			
Academic			.969		
Language				.990	
Socialization					.982

Thus, as an expression of the accuracy with which the Post-Entry Instrument measures behavioral observations, three different methods were established to yield different measures of reliability which vary in content. The measures of agreement calculated are presented to demonstrate the consistency in the recording of observed behaviors between observers and across time, as well as interval consistency. The high reliability of the Post-Entry Instrument suggests that data from two observers do not reflect idiosyncratic judgements and that alternate observers, appropriately trained, would produce similar data.

Monitoring

With the demonstration of the accuracy and consistency of data collected on the Post-Entry Instrument, the instrument was ready to be implemented as a monitoring device. An instrument which serves not only as an assessment tool, but also provides a simultaneous monitoring device, departs from the assumption that the measurement of performance levels is a continuous process. Consequently, assessment is not limited to the period before the systematic implementation of training programs; it should also occur regularly at a continuous or intermittent basis throughout the intervention and, afterward, during periodic follow-up periods.

If the Post-Entry Instrument is employed as a monitoring device, the following procedures are recommended. First of all, baseline data (pre-test) are collected on all five subscales of the instrument. The observer commences his behavioral observations with Item 1, Level I on each subscale and continues until a ceiling level is reached. If the individual fails to perform two of the five behaviors at a given level, the observer is instructed to shift his observation to the next lower level. If the person to be assessed passes all items of a given level, the observer continues upward until three consecutive items are failed, regardless of level.

The Post-Entry Instrument may be used for monitoring purposes in the case of transfer of individuals with developmental problems to new facilities, admission to community-based programs, etc. The second type of monitoring employs the Post-Entry Instrument by using separate subscales independently for periodic monitoring of a specific skill area such as motor development. After administering the motor

development subscale, those behaviors which the individual failed to exhibit or those behaviors which were performed only with physical or modeling cues may be used as target areas for intervention for the development of skill proficiency.

To illustrate the post-entry monitoring system, based upon accurately derived profile scores representing the characteristic behavior of the individual, the following case history is presented to illustrate the procedure.

Tommy is an active, blond-haired, blue-eyed four year old who was admitted to SEVTC in August, 1975. His parents are divorced and, before his admission, he was living at home with his mother, who referred him for services. He was born in a twin delivery after 30 weeks gestation, weighing 1 lb. 14 oz. at birth. After a year of hospitalization which was characterized by a stormy neonatal period requiring large amounts of oxygen and heroic attempts to save his life, he was discharged in 1972 at a weight of 3 lbs. 11 oz. At the age of seven months it was discovered that he suffered from retrolental fibroplasia in both eyes.

When he was admitted to SEVTC, his entry performance level in six developmental areas was established as 0.7 in a local eight-level programming hierarchy. He was completely nonverbal and had no observable social skills. Although his mother described him as a happy, good natured child, he usually did not respond to other people and his play was of a solitary nature. He also engaged in a variety of tantrum behaviors such as screaming and kicking. Frequently, he would play with his fingers, staring at them - a sign that he was slipping into his own world. Tommy's service contract called for toilet-training and dressing skills. The discharge plan for Tommy is to return to his mother and to be placed in an appropriate community program.

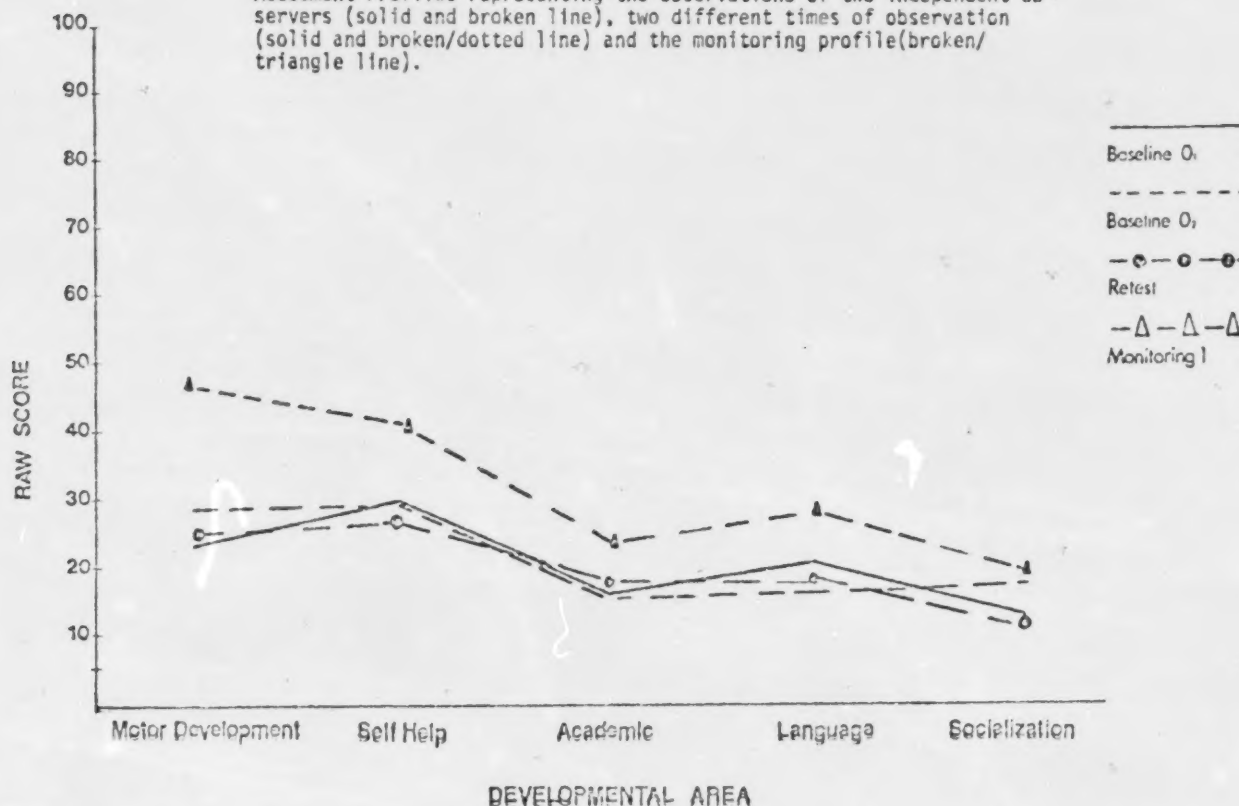
During Tommy's initial baseline assessment (pre-test), data were collected under three different conditions to guarantee consistency of scores: by two different observers and by the same observer on two different occasions to guarantee a representative sampling

Figure 4

The Case of Tommy

PROGRAM ASSESSMENT PROFILE

Assessment Profiles representing the observations of two independent observers (solid and broken line), two different times of observation (solid and broken/dotted line) and the monitoring profile (broken/triangle line).



of his behavior. In Tommy's case this was particularly important since the type of behavior he displayed was usually dependent upon the person who attempted to elicit the skills. Perceived personality characteristics and familiarity with a staff member might broaden or narrow his behavioral repertoire. His overall skill level was also susceptible to fluctuations; for instance, he might perform a given task one day but refuse to do so the next.

Figure 4 represents Tommy's baseline assessment. As is indicated by the solid and broken lines, both observers observed highly comparable behaviors. Similarly, the second assessment occasions represented by the broken/dotted line yielded a comparable profile. Based on this assessment, the academic and language areas were selected as target points for subsequent program implementation. Although Tommy's profile also showed a depressed score in the area of socialization and self-help, language and academic programs were yoked because of the close relationship between the rate of acquisition of linguistic

competence and cognitive development. Furthermore, it was anticipated that the acquisition of a basic language repertoire might facilitate toilet-training. After directing the attention of the immediate training staff to these specific behavioral areas, a number of training programs were selected to elevate Tommy's performance in the target domains. The linguistic programs included imitation of sound chains, reproduction of words from memory, and correlation of articles of clothing with body parts. In the academic area, Tommy was exposed to basic color and shapes, taught to recognize objects in his daily environment, etc.

Two months after the original baseline assessment, the Post-Entry Instrument was administered again to monitor Tommy's progress. His monitoring profile, represented in Figure 5 by the broken lines, interspersed with triangles, showed considerable gains in both target areas. At this time, Tommy was able to identify pictures, recognize the names of major body parts, and make verbal responses to simple requests. Furthermore, toilet-training, which was implemented between the baseline and monitoring assessments, had progressed at a rapid rate. The case of Tommy illustrates that systematic monitoring can be highly effective in identifying the need for a new program and for documenting behavioral change units.

Other than maintaining up-to-date records on persons undergoing preparatory training for community integration, it should be noted that monitoring individual progress also provides an excellent and objective measure of program effectiveness. While program evaluation is an activity which is qualitatively different from assessment or behavioral measurement, it is nevertheless closely related to both. Demonstrating that behavioral change is the direct result of some form of programmatic manipulation serves as a major mandate for virtually all program evaluators. Assessment ties closely to program evaluation because the most essential kind of comparison to be made

is between the assessment of the individual's status before an intervention (pre-test) and the assessment of his status following the application of the intervention (post-test).

However, as Jones (1974) pointed out, differences found in pre-versus post-intervention performances, either for single individuals or for groups of individuals, are not sufficient reason to conclude that the change is the result of the programmatic manipulation. Any observed change might have occurred anyway, triggered by maturation or sufficient learning prerequisites. The behavioral change observed might have occurred as a simple coincidence during the interval between the planned programmatic interventions. From the standpoint of methodology, the ideal design for an evaluation of program effectiveness would involve the random assignment of individuals to treatment and control groups; however, in most practical situations, the efficacy of an intervention program needs to be analyzed when, for ethical reasons, such random assignment is not possible.

Nevertheless, with a few additional data sheets to identify possible outside influences which might have caused an observed change, the Post-Entry Instrument can be employed effectively in program evaluation. Kazdin (1975) strongly encouraged the use of non-target behavioral measures that are not of direct training focus but measure change which might occur simultaneously with programmatic intervention. The Personal Data Sheet is specifically intended to assess changes in an individual, and it should be filled out by the observer before or after each assessment, since sudden decrements in performance may sometimes be accounted for by changes in health status or attitude. While the Personal Data Sheet keeps track of personal changes which

may be responsible for the behavioral changes observed, a questionnaire directed at staff members is designed to assess environmental changes. An example of such a questionnaire is provided in Appendix B.

The Post-Entry Instrument, along with some control measures of extraneous influences which might concomitantly take place in the resident's personal and social environment, can be a useful tool for program evaluation. The degree to which evaluation findings are translated into revised plans, thence leading to improved performance, will depend on the individual facility or agency adopting this procedure.

Validity

The first aspect of dependability in assessment procedures is concerned with reliability, which refers to the consistency of scores. Reliability is mainly of interest as a necessary condition for valid measurements; however, it should be noted that high reliability is a necessary but insufficient requirement for validity. While it is true that low reliability places an upper bound on validity, it is not necessarily true that validity will increase as reliability increases. It happens occasionally that high reliability is taken to be a sign of validity. However, such a conclusion is unwarranted because observers or raters may have the same common biases or because the observations or ratings express something entirely different from what was intended by the instructions (Magnussen, 1970).

Thus, the second aspect of dependability - validity of an instrument - concerns what the instrument measures and how well it does so. The behaviors measured by a given assessment tool can be identified only through an examination of objective sources of information and

empirical studies (Anastasi, 1976). Fundamentally, all procedures for determining validity are concerned with the relationships between performance as measured by an instrument and by other independently observable facts about the behavior characteristics under consideration. Validity is typically expressed as the correlation between measurements obtained from the instrument and another known measure of the criterion variable. Especially in the case of criterion-referenced measurements, validity is of major concern. In general, criterion-referencing itself suggests that validity must depend upon the correspondence of items with the objectives to which the instrument is referenced. Items which are matched to program goals usually facilitate validation procedures.

In order to establish the validity of the Post-Entry Instrument, a third field test was established to collect up-to-date assessment profiles of the SEVTC resident population. The comparative measure of an individual's level of functioning was derived from a questionnaire which was submitted to all cottage supervisors, who were asked to rate their residents in terms of community readiness. Table 15 represents the five-point rating scale which conceptualizes community readiness along a continuum ranging from minimal independence to complete autonomy. Cottage supervisors were instructed to place a check mark on the scale which corresponds to the resident's readiness for community-based living alternatives. If the resident's level of independence did not correspond to any of the full scale points but ranged in between, decimals were to be used. For example, if the individual was judged between 3 and 4, he might receive a rating of 3.6, indicating his level of independence was rated between 3 and 4--somewhat closer to 4 than to 3. 67

TABLE 15

RATINGS OF RESIDENT'S READINESS FOR COMMUNITY PLACEMENTS

Resident:

Cottage:

Team Leader:

Date:

Please rate the resident's level of independence on the five-point scale given below by placing a check mark over the number which in your judgment corresponds to his readiness for community-based living alternatives.

1	2	3	4	5

Before you place your check mark, please read the description of each scale point carefully.

- 1 = corresponds to absence of minimal independence. At this level, the individual requires continuous care and medical support. Frequently he is non-ambulatory and/or severely physically handicapped. Twenty-four hour residential care is necessary for maintenance of an individual at this level.
- 2 = The person is still very dependent upon assistance and supervision in his daily activities although he can take care of some basic needs with assistance (for example, self-help skills such as eating, dressing, toilet training). In case of a child, a foster family home is a placement alternative since such an environment provides opportunities for continued supervised care and assistance. In case of an adult a short-term specialized facility emphasizing systematic training efforts is an appropriate placement.
- 3 = the individual independently takes care of his personal needs such as eating, dressing, toileting. If he is an adult he resides at a short-term facility and profits from training programs including prevocational training. In the case of a child, specialized preschool or school programs for children with developmental disabilities (not public school programs) would be beneficial. In general, individuals at this level of independence are still dependent upon continuing supervision and sheltered living.
- 4 = the individual lives in a structured group home with programs for continuing development of social, academic and communication skills. In the case of an adult, he could function in a special employment setting such as a sheltered workshop and receives assistance in the management of his personal affairs (money, work schedules, transportation). A child at this level of independence attends special classes in public schools (TMR or EMR).
- 5 = the person lives in independent living arrangements such as an apartment cluster (i.e., functional grouping of a small number of apartments housing retarded persons), co-residence apartment (i.e. shared by two or three retarded persons) or maximum-independence apartments. Individuals at this level are employed in the community and are capable of effective social and economic functioning in a "normal" environment. Occasional supervision would be provided through a case worker in the local retardation mental agency. In case of a child he attends regular classrooms in public schools.

The comparison of scores on the Post-Entry Instrument and ratings made by cottage supervisors was analyzed as follows: A level score was computed for each subscale of the Post-Entry Instrument which represented the highest attainment in that particular area. Subsequently, a composite overall score was calculated which consisted of the average level-score across the five subscales. This average level-score was compared to the cottage supervisor's rating. Table 16 depicts the data analysis employed for validation of the Post-Entry Instrument.

The correlation between the averaged level-scores of the subscales of the Post-Entry Instrument and the cottage supervisor's ratings of community readiness of residents yielded a coefficient of .91, which represents the formative validity coefficient of the instrument. The results of the validation study indicated high predictive validity; i.e., scores on the Post-Entry Instrument are valid predictors of an individual's level of independence and his readiness to move along a continuum of community-based services. Figure 5 presents a summary of post-entry assessments completed to date.

The Post-Entry Instrument has demonstrated reliability and validity in measuring and monitoring behavioral changes resulting from programmatic intervention. The final criterion to be evaluated is that of utility. Given the precision and validity of post-entry assessment, a substantial contribution to the standardization of program-entry level can be made. Then, based on post-entry assessments, a decision-theoretic approach to program implementation is recommended. Given a set of criterion scores, for example, using 75% of the total skill competency of a given level as cut-off score will

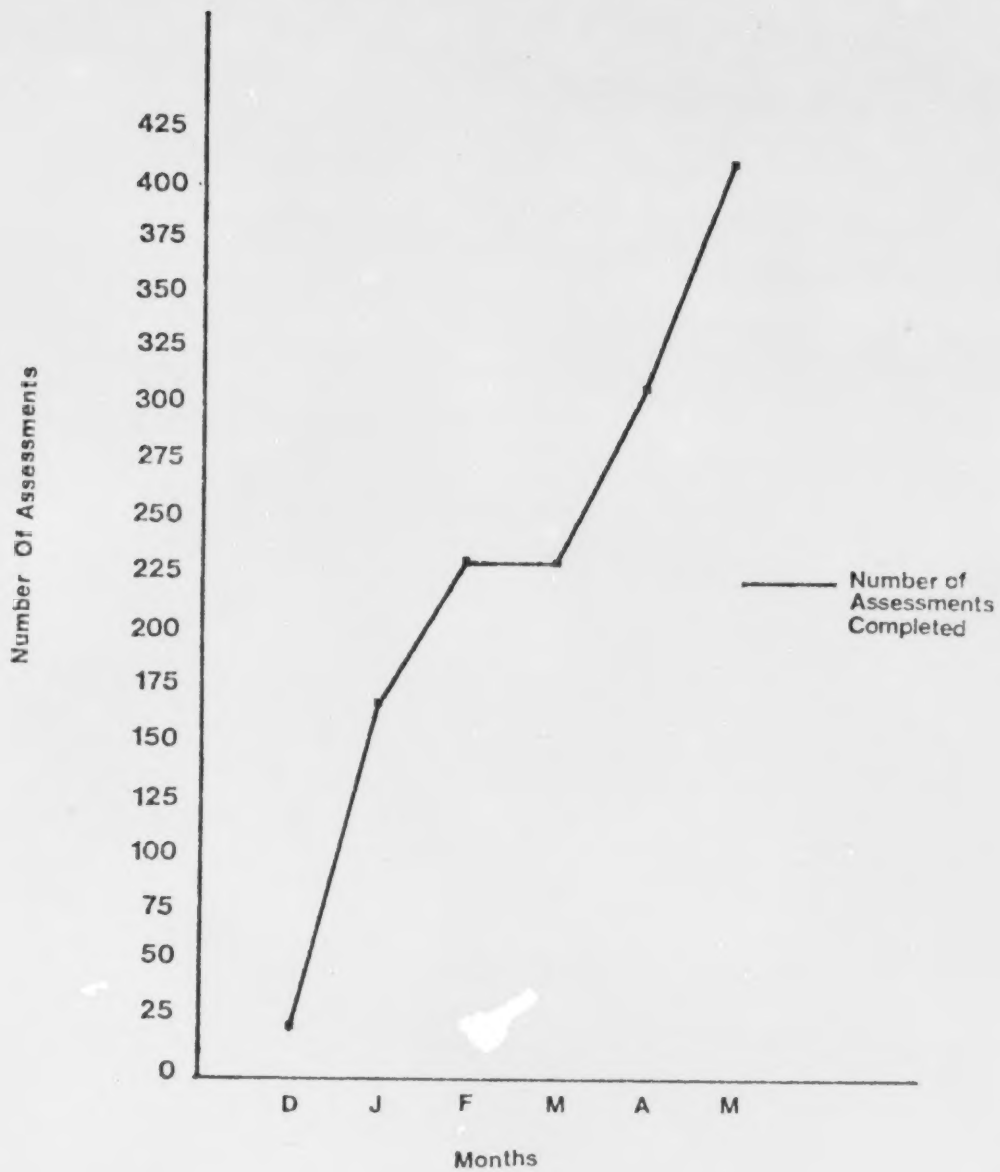
TABLE 16

Post-Entry Instrument Validation
(n = 77)

Resident	Level of Functioning						Cottage Supervisor Rating
	MD	SH	A/C	LAN	SOC	$\bar{X}$	
1	2	3	1	2	2	2.0	2.0
2	4	4	3	3	3	3.4	3.5
3	4	3	1	5	5	3.6	3.8
4	4	3	2	4	4	3.4	3.5
5	3	3	3	3	4	3.2	3.5
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
77	4	2	2	2	2	2.2	2.0
$r = .91$							

Figure 5

POST-ENTRY ASSESSMENTS



allow decisions in two different directions. If the individual has reached or exceeded the 75% cut-off level, the decision would be to advance him to the next sequence of programs. If the score falls below the 75% level, the recommendation would be to retrain the individual and repeat the last sequence of programs.

Facilitating programmatic decisions, evaluating training programs, and providing data collection tools for diagnostic observations are some of the practical applications of post-entry assessments for professionals, paraprofessionals, and various agencies involved in preparing individuals with developmental problems for community entry.

CHAPTER III

DISCUSSION

This project proposed a three-phase assessment system for assessing adaptive skills of individuals with mental retardation problems. This has become necessary in order to accomodate new methods of providing services in the field of mental retardation. Recently, an increasing movement has developed to provide normalizing experiences for individuals with developmental problems. Basically, normalization implies that environments for disabled individuals should be made as similar as possible to environments found in the mainstream of society (Nirje, 1969). It means exposure to normal patterns of activity, work, leisure, and peer interactions. Most of all, it means what Perske (1972) has called the "dignity of risk".

Normalization implies a trend from a broad categorization of individuals with developmental problems to a focus on individual differences. In fact, individualization planning is an essential feature of normalization. As a philosophic underpinning for service delivery systems, the normalization principle encourages and reinforces fundamental changes in the perception of mentally handicapped individuals. Instead of regarding them as incapable of growth, the focus has shifted to their developmental potential. Since the advent of the normalization principle, the developmentally disabled person is no longer perceived as being significantly different from others, but he is seen as someone who shares the feelings, aspirations, and fears of normal people. Like others in the community, he is expected to have values which include working hard and living peacefully.

Normalization is more than a simple plea for fair and equitable treatment (Wolfensberger, 1972). It is a philosophy of human management which assumes behavior is not only a function of the individual's inherent capacities but is also a function of the demands and expectations of the environment in which the person lives at a given time. This quest for a "normalizing" environment which provides experiences and modes of behavior has important consequences for the processes of measuring and assessing behavior repertoires of individuals who are labeled retarded. First of all, the normalization principle suggests that continuing evaluation of the individual's current level of functioning be carried out, because the person with mental retardation problems is a developing individual and his developmental rate can be accelerated through effective intervention. Second, in order to measure the acquisition of "normalized" behavior, reliable and valid assessment devices which have built-in programmatic meaningfulness and implications for program prescriptions are needed.

The overall goal of this project, then, is to integrate recent conceptual trends and resulting practical consequences into a comprehensive assessment system which takes the philosophy of normalization and current emphasis on community integration into account. During the first project year, a skill assessment instrument, the Pre-Entry Instrument, was developed to facilitate the initiation of normalization processes by identifying individuals from existing institutional or non-programmatic placement as prospective candidates for community-based programs.

The second project year focused primarily on the development and validation of the Post-Entry Instrument (Objective 1).

Objective 2 concerned the reliability of the newly developed instrument. During the second project year, empirical data were collected to provide data for various types of reliability coefficients. The reliability level of the Post-Entry Instrument (.96 total reliability) across three different coefficients (inter-observer, test-retest, and split-half reliability) by far exceeds that of comparable tools. To obtain this high level of reliability, all cues used to elicit the behaviors in question (i.e. verbal, modeling, physical) were standardized, and observers were provided with precise descriptions of what constituted criterion performance for each item. As a result of this standardization, greater control and precision of observational data are possible. At the same time, fewer demands are placed on the observer because explicit behavioral instructions which allow for fewer inferential judgements are used.

Nunnally (1967) pointed out that, in basic research, the concern is mainly with the sizes of correlations and with the differences in means for different experimental treatments. For these purposes, a reliability of .80 for the different measures involved is adequate. However, in contrast to the standards of basic research, in many settings a reliability of .80 is not nearly high enough. In many applied programs, a great deal hinges on the exact score, especially if this score is used as a basis for decision-making. For example, if a particular school system places children with IQ's below 70 in special classes, it makes a great deal of difference whether a particular child has an IQ of 65 or 79. Even with a reliability of .90, the standard error of measurement is considerable. Consequently, it is generally agreed that, in those applied settings where important

decisions are made with respect to specific scores, a reliability of .90 is the minimum that should be tolerated, and a reliability of .95 is a more desirable standard. The data concerning the reliability of the Post-Entry Instrument are, therefore, well within the range of this standard, regardless of the type of reliability coefficient.

To maintain this high level of reliability, a number of recommendations are made. First of all, it is advisable that observers be trained to an acceptable criterion level of inter-observer reliability. Second, since it cannot be assumed that an observer's performance is the same during overt reliability assessment as during unmonitored observations, observers should be told they will be periodically checked for accuracy and informed where the checks are taking place. Studies recently reported by Reid (1970) and Romanczyk, Kent, Diamant, and O'Leary (1971) have brought no-check testing procedures into serious question. Consequently, during the third project year, additional reliability studies will be scheduled investigating the effectiveness of spot-check procedures to assure continued reliability of observations, since the reliability of observational data is not established by a given reliability coefficient, no matter how high that coefficient may be.

Long-range stability of post-entry scores is not an issue, since the skills being measured by the instrument are not enduring characteristics of the individual but are expected to change over relatively short periods of time. The major use of the reliability coefficient is, therefore, in communicating the extent to which the results are repeatable and dependable.

The third objective (3) stated a validity coefficient criteria

of .90 or greater as a desirable level of validity. The formative validation study of the Post-Entry Instrument was directed at predictive validity. Since this type of validity is a major issue in applied settings, it, therefore, was the first to be tested. Establishing a functional relationship between a person's level of functioning as measured by the Post-Entry Instrument with a particular criterion variable, e.g. readiness for community placement, was the major purpose of the first validation study, which yielded a validity coefficient of .91.

However, validity is not an all-or-none property but an unending process. Strictly speaking, one does not validate an instrument but, rather, some use to which the instrument is put (Nunnally, 1967). Consequently, during the third project year, different types of validity investigations will be pursued. The first deals with concurrent validity, which will be estimated through a comparison of the Post-Entry Instrument with the Behavior Developmental Survey of the Individualized Data Base (IDB), a model data-collection system for tracking the developmentally disabled through a continuum of services and living plans over time. Finally a comparison will be made between the Post-Entry Instrument and an already established instrument to arrive at a measure of construct validity. For this purpose, data have been collected on individuals receiving services through Tidewater Association for Retarded Citizens ($n = 40$) for whom data on the AAMD Adaptive Behavior Scale are available. A preliminary verbal report received at the time of writing indicates a rank order correlation of .91 between scores derived from the Post-Entry Instrument and those collected on the AAMD Adaptive Behavior Scale. The scores recorded were based on consensus

agreement of three program staff members for each individual being assessed. Additionally, the staff psychologist at SEVTC is currently assessing SEVTC residents, using the Vineland Social Maturity Scale. These assessments are considered a potential source of data for construct validations. If these different measures of an individual's behavior repertoire tend to supply the same information, the construct validity of the Post-Entry Instrument has been well documented.

Finally, the last type of validity about which a statement can be made is content validity - the degree to which the items appearing on the Post-Entry Instrument adequately reflect the specified domain of content. Content validity has not been specifically demonstrated at this point. Content validity cannot be determined by correlating post-entry scores with criterion, because the instrument itself is the criterion. Rather, the instrument must stand by itself as an adequate measure of what it is supposed to measure. An empirical investigation of content validity in terms of sensitivity to programmatic intervention will be conducted during the third project year. The concept of sensitivity was introduced by Ozenne (1971) as an appropriate measure for evaluatory criterion-referenced instruments.

Even without an empirical demonstration of content validity, some features were incorporated during the construction of the instrument which allow a fair degree of confidence in the adequacy with which content has been sampled. For instance, the procedure employed in collecting and finally selecting items that broadly represent the different behavioral domains is an example of circumstantial evidence for content validity. Since it was agreed by the raters that the plan of item sampling was sound and well carried out, a certain degree

of content validity may be inferred. Another type of circumstantial evidence is obtained by comparing an individual's performance level before and after a given period of training. Since the Post-Entry Instrument is intended to measure progress in training, an individual's scores should increase from before to after, and this improvement in scores or behavioral gains acquired as a function of training can be considered evidence for the validity of an item.

A number of empirical investigations designed to establish different types of validity are scheduled for the third project year. The types of validity which will be examined are mainly content and construct validity. In addition, it is anticipated that future users of the Post-Entry Instrument will broaden the range of validation criteria by empirical investigations which are specific to their own population and context.

The accomplishment of the fourth objective (4), providing programming staff with accurate, reliable information concerning the individual's current level of functioning in order to facilitate the selection of implementation of training programs, was guaranteed by the high reliability and validity of the Post-Entry Instrument.

Objectives 5 and 6 are concerned with the use of the Post-Entry Instrument as a monitoring system. At SEVTC, the Post-Entry Instrument will become an integral component of the diagnostic assessment which the individual undergoes upon transfer. In this context, the instrument will identify program entry levels. The Post-Entry Instrument will also be used for the six-month review which is scheduled after the individual has been exposed to systematic programmatic intervention for six months.

Preliminary research concerning the third instrument of the proposed three-phase assessment system (Objective 7) has been conducted during both the first and second years of the project. The current trend of expanding community services, rather than providing traditional institutional care, reflects the growing belief in the potentially positive effects of a more normalized environment on development and behavior (Wolfensberger, 1972). Some professionals (Kraus, 1972) even assert that actual living in the community provides the best training for the adjustment and socialization of persons with mental retardation problems.

While systematic data on the adjustment of persons in the community and the specific nature of their adaptive problems are largely unavailable at the present time, some standards, interests, and concerns regarding acquired skills and interpersonal relations are gradually emerging as critical demands required of individuals living in the community. For example, Nihira and Nihira (1975) isolated a number of adaptive behaviors which were found to be significant determinants of success for community-placed individuals. Among these were abilities such as performing simple domestic tasks, moving around the community safely and independently, handling simple economic tasks, and communicating verbally. However, the concern is not only with acquired self-care and domestic skills but also with the individual's ability to interact with members of his community in an appropriate manner. For example, Birenbaum (1975) pointed out that many individuals released from residential facilities display an apparent lack of social skills. While deficiencies in the area of interpersonal skills might not be considered to require attention in the institutional environment, the

inability to behave in a socially appropriate manner may be the major problem interfering with successful adjustment when placed in the community. Social adjustment, however, is a two-way process: The retarded person must not only adjust to society, but society must also learn to accept him.

Community acceptance will largely determine the extent to which community-based programs will be successful. In spite of normalization efforts, public attitudes toward mental retardation have changed little over the last decade. One of the ironies in the field of mental retardation is that, although it is now well known among professional workers that the overwhelming portion of retardation is attributed to cultural and environmental differences and not to observable organic and genetic anomalies, the predominant view of mental retardation among the public at large is that of a physically damaged person (Gottlieb, 1975). For example, Gottwald (1970) asked respondents to indicate what the phrase "mentally retarded" meant to them. Most participants of this study ($n = 15$) attributed mental retardation to birth injury, birth defects, or brain damage, i.e. forms that constitute a minority of all cases diagnosed as mental retardation but are usually associated with the more severe cases. Thus, despite numerous attempts to inform the public about mental retardation, the popular conception of a mentally retarded individual evokes the image of physical and behavioral abnormality.

In order to create more positive attitudes toward individuals with developmental problems, it becomes necessary to identify the target population in ways that do not lead to labeling and stereotyping. The return to the community could be seen as a process of moving out

of stereotyped roles, since the reliance on traditional test scores and other criteria based on intellectual ability denies the potential of the mentally retarded individual for community living. To avoid relabeling or further stigmatization, the emphasis should be on the specific skills necessary for community living rather than on arbitrarily defined ones.

However, little is presently known about which skills are important for a person with developmental problems living in the community. One of the priorities of the third year of the project is to isolate those skills which are considered to be minimal requirements for adjustment to various independent living alternatives (i.e. foster home, group home, co-residence, or maximum independence apartment). If specific skills and skill levels can be identified for each of those alternatives, community preparation programs can be developed to minimize jeopardy in community placement.

The major objective of the Community Living Skills Profile will be to develop and validate a criterion-referenced programmatic assessment tool which serves the following functions:

1. to identify the critical demands being made by community placements, i.e. to establish a minimal level of functioning, which is required of individuals for community entry.
2. to isolate those critical living skills which are specific to various placement alternatives. For example, it is anticipated that a child who is released into a public school system will require a preparatory training program which emphasizes academic and language skills. An adult entering a group home, on the other hand, needs to be prepared for a higher degree of independence coupled with some vocational training.
3. to provide a baseline against which skills can be monitored to quickly identify behavior or skill degeneration as intensive programmatic support is faded out.

4. to facilitate continued transfer through community programs and monitoring progress.
5. to provide means of collecting follow-up data which objectively measure the success and failure of individuals in community-living alternatives.

The third year of the project will continue the second-year activities of extensively surveying the literature to gather information regarding which critical living skills are prerequisites for the various kinds of community-based living alternatives. Specifically, questionnaires will be given to persons responsible for current community-living alternatives. They will be asked to cite specific examples of behavior that show successful adaptation of their community placement. With each incident, data will be collected on the age, sex, degree of mental and/or physical handicap, and number of months in the living situation. In addition, information on specific incidents of problem behaviors will be collected.

Since criteria for adjustment are frequently too broad to be meaningful, specific operational definitions will be used to provide a standard set of response factors or observable pinpoints. Adjustment will be operationalized in terms of an overall picture of residential employment with a number of background variables. Specific questionnaire items will investigate factors such as: (1) the number and type of job terminations in a specified period; (2) unemployment periods (frequency and duration); (3) the number and type of living arrangement changes made (i.e. voluntary versus eviction moves); (4) court appearances; and (5) the number and type of requests to agencies for assistance.

It is anticipated that this survey will yield answers to the questions such as:

1. What kinds of maladaptive behaviors are cited most frequently, i.e. What are areas of problem behaviors which tend to jeopardize community living?
2. What kinds of adaptive behaviors are cited most frequently as prerequisites for community placement?
3. What is the minimal degree of socialization necessary for a given community-living alternative?
4. What is the minimum skill level necessary for community entry?

Skills to be assessed by the Community-Living Skills Profile will be such abilities as using public transportation, maintaining clothes and living area, personal hygiene, money management, group living and recreation, etc. Just as comparisons of the item content of the Pre- and Post-Entry Instruments indicated that a progression had taken place from basic self-help skills at the pre-entry level to a more complex behavior repertoire at the post-entry level, the transition from short-term treatment at training facilities to community living is also expected to cause a shift in item content. Individuals who are supervising persons with mental retardation problems in the community need reliable information concerning the skill repertoire of the person. For example, knowledge of the individual's vocational skills or information concerning the activities he engages in during leisure time becomes essential to furthering independent living. Furthermore, inappropriate behaviors need to be assessed in terms of type and frequency to avoid inappropriate or premature placement changes.

With the development and validation of the Community-Living Skills Profile, an assessment device will become available for the follow-up of individuals who have made the transition from a very restrictive environment to one which allows them to function at the highest possible level of independence. It will provide a means for assessing successful

and unsuccessful adjustment in various community-living alternatives. Community living means making available a wide range of choices which allow for movement to programs offering maximum opportunity for progress.

In summary, this project has now completed the development and validation of two instruments of the proposed system. In addition to the assessment of skills and skill levels and adaptive and maladaptive behaviors, the determination of the individual's current level of functioning at any given time is a dimension which is most important for rehabilitation goals. With the completion of the third phase, a package will be available which provides a set of skill assessment instruments based on a three-phase community integration model designed to facilitate community entry of individuals with developmental problems.

REFERENCES

- Anastasi, A. Psychological testing. New York: MacMillan Publishing Co., Fourth Edition, 1976.
- Azrin, N. H. and Foxx, R. M. A rapid method of toilet training the institutionalized retarded. Journal of Applied Behavior Analysis, 1971, 4, 89-99.
- Baroff, G. S. Mental Retardation: Nature, cause and management. New York: John Wiley & Sons, 1974.
- Baumrind, D. Naturalistic assessment of parent-child interaction. Paper presented at the Conference on Research Methodology of Parent-Child Interaction, Syracuse, New York, 1964.
- Begab, M. and Richardson, S. (Eds.) The mentally retarded and society: A social science perspective. Baltimore: University Park Press, 1975.
- Berkson, G. Behavior. In Wortis, E. (Eds.), Mental retardation and developmental disabilities: An Annual Review. New York: Brunner/Mazel, 1973.
- Birenbaum, A. Resetting mentally retarded adults in the community. Intellect, 1975, 443-446.
- Cherington, C. and Dybwad, G. New neighbors: The retarded citizen in quest of a home. Washington, D.C.: President's Committee on Mental Retardation, 1974.
- Cronbach, L. J. Test validation. In R. C. Thorndike (Ed.), Educational measurement. Washington, D.C.: American Council on Education, 1971.
- Daniels, J. On words. Mental Retardation, 1974, 12, 1, 52.
- Dickson, C. The role of assessment in behavior therapy. In Reynolds, P. (Ed.), Advances in psychological assessment. San Francisco: Jossey Press, Inc., 1975.
- Gottlieb, J. Public, peer and professional attitudes toward mentally retarded persons. In M. Begab and S. Richardson (Eds.), The mentally retarded and society: A social science perspective. Baltimore: University Park Press, 1975.
- Gottwald, H. Public awareness about mental retardation. Research Monograph, Council for Exceptional Children, 1970.
- Jones, M. Design and analysis problems in program evaluation. In P. Davidson, F. Clark, and L. Hamerlynck (Eds.), Evaluation of behavioral programs. Champaign, Ill.: Research Press, 1974.
- Kazdin, A. Behavior modification in applied settings. Homewood, Ill.: The Dorsey Press, 1975.

- Kraus, J. Supervised living in the community and residential and employment stability of mentally retarded male juveniles. American Journal of Mental Deficiency, 1972, 17, 283-290.
- Magnussen, D. Test Theory. Reading, Mass.: Addison-Wesly Publishing Company, 1970.
- Morrey, J., Reavis, K., Rice, J., Andresen, N., and Watrous, K. Annual Report. Unpublished manuscript. Chesapeake: Southeastern Virginia Training Center for the Mentally Retarded, 1975.
- Nihara, L. and Nihara, K. Normalized behavior in community placement. Mental Retardation, 1975, 9-13.
- Nirje, B. The normalization principle and its human management implications. In R. B. Kugel and W. P. Wolfensberger (Eds.), Changing patterns in residential services for the mentally retarded. Washington: President's Committee on Mental Retardation, 1969.
- Nunnally, J. C. Psychometric theory. New York: McGraw-Hill, 1967.
- O'Leary, D. and Kent, R. Behavior modification for socialization. Research tactics and problems. In A. Hamerlynck, K. Handy and E. Mash (Eds.), Behavior change: Methodology, concepts, and practice. Champaign, Ill.: Research Press, 1973.
- Ozenne, D. Toward an evaluative methodology for criterion-referenced measures: Test sensitivity. (CSE Report No. 72) Los Angeles: University of California, Center for the Study of Evaluation, 1971.
- Perske, R. The dignity of risk and the mentally retarded. Publication of the National Association for Retarded Citizens, Arlington, Texas, 1972.
- Pophan, J. and Husek, T. Implications of criterion-referenced measurement. Journal of Educational Measurement, 1969, 6, 11, 1-9.
- President's Committee on Mental Retardation. Residential programming: Position Statement by the National Association for Superintendents of Public Facilities for the Mentally Retarded. Washington, D.C.: President's Committee on Mental Retardation, 1974.
- Reavis, K., Morrey, J., and Hamel, K. Behavioral assessment procedures for community reintegration. The American Association for the Education of the Severely/Profoundly Handicapped Review, 1976, 34-46.
- Reavis, K., Oksner, P., Hylton, E., and Morrey, J. Individual Analysis and Prescription Profiles for Deinstitutionalization. Final Report submitted to Social and Rehabilitation Services, Department of Health, Education and Welfare. Southeastern Virginia Training Center for the Mentally Retarded, 1975.
- Reid, J. B. Reliability assessment of observational data: A possible methodological problem. Child Development, 1970, 41, 1143-1150.

- Romanzyk, R., Kent, R., Diamant, L., and O'Leary, K. Measuring the reliability of observational data: A reactive process. Journal of Applied Behavior Analysis, 1973, 6, 1, 175-184.
- Scheerenberger, R. C. A model for deinstitutionalization. Mental Retardation, 1974, 12, 6, 3-7.
- Segal, R. Current trends in the pattern of the delivery of services to the mentally retarded. Mental Retardation, 1971, 9, 44-47.
- Thorndike, R. L. Educational measurement. Washington, D.C.: American Council on Education, 1971.
- Thurman, S. K., and Thiele, R. C. A viable role for retardation institutions: The road to self-destruction. Mental Retardation, 1973, 11, 21-23.
- Wolfensberger, W. Twenty predictions about the future of residential services in mental retardation. Mental Retardation, 1969, 7, 51-54.
- Wolfensberger, W. Will there always be an institution? I. The impact of epidemiological trends. Mental Retardation, 1971a, 9, 14-20.
- Wolfensberger, W. Will there always be an institution? II. The impact of new service models - residential alternatives to institutions. Mental Retardation, 1971b, 9, 31-37.
- Wolfensberger, W. The principle of normalization in human services. Toronto: National Institute of Mental Health, 1972.
- Zipperlen, H. Contribution to the PARC Conference (Planning Alternatives for Retarded Citizens) Harvard University, unpublished, 1974.

APPENDICES

Sample Materials and Referenced Examples

APPENDIX A

Pre-Entry Instrument

A1 - A14	Revised Pre-Entry Instrument
A15	Number of Pre-Entry Assessments Completed

ASSESSMENT SCALES FOR DEINSTITUTIONALIZATION
OF SEVERELY/PROFOUNDLY HANDICAPPED

PART I
PRE-ENTRY SCREENING

Pre-Entry Screening

Instructions for Administration and Scoring

The SEVTC-Assessment Scales for Deinstitutionalization provide an assessment/prescription system designed to facilitate decision making for individuals with mental retardation problems to live in the least restrictive environment. Based on a three-phase model which conceptualizes community integration as a series of successive transfers from (1) a restrictive institutional or non-programmatic environment through (2) specialized short-term, program-oriented habilitation facilities to (3) the least restrictive community living alternative three criterion-referenced instruments have been developed and validated which assess the individual's competence in critical skill areas specific to each of the three phases of the proposed model.

The Pre-Entry Instrument is the first in the series of three instruments designed to initiate the community integration process by identifying individuals who are most likely to profit from available training services provided by short-term, specialized community facilities.

As a screening device, the Pre-Entry Instrument uses a criterion-referenced limited response-contingent approach to assessment in the form of a structured direct-contact staff/parent interview conducted at the sending environment. To avoid the collection of non-representative information, it is suggested that the person being interviewed has worked with the individual in question for at least three months. If necessary the interview can be conducted by telephone.

ADMINISTRATION

The Pre-Entry Instrument assays the following skill areas: language (L), personal hygiene (PH), toilet training (TT), dressing (D), undressing (UD),

table behavior (TB), and gross motor skills (GMS). Each of these skill areas assesses individual competence in five specific subskills which are identified as behavioral statements.

STATEMENT 1

The first item in each area is designed to eliminate interviewing the person about skills which the individual is highly unlikely to accomplish due to severe physical or medical limitations. For example, the answer to the question "are there any physical limitations which would interfere with talking" may be that the individual in question has a defect of motor speech skills which prevents him from acquiring verbal language skills. In this situation there is no need to question the extent of his language skills (i.e. "uses conversational speech", "uses words", "uses phrases", "uses sentences") because the handicapping condition precludes the individual from verbalizing. If gross physical limitations do exist the interviewer blackens the "yes" circle and specifies the type of condition on the answer sheet in the box under the appropriate skill area and moves to the next skill area. If no severely handicapping physical limitations exist, the interviewer proceeds to Statement 2.

STATEMENT 2

The second item is designed to expedite the interview in the event that the individual is proficient in the particular skill area. For example, if the answer to the statement "uses conversational speech" is "true", the three qualifying statements under Statement 2 (i.e. "no help is needed in making his needs known", "speech is generally clear and distinct", "speech can be understood by a stranger") are read. If a qualifying statement is answered "true" the interviewer blackens the circle adjacent to the statement.

If all three qualifying statements are marked "true" the interviewer goes directly to the next page without presenting items 3, 4 and 5. In the event that one of the statements is answered "false" Statement 3 is read.

STATEMENT 3

The same principle applies for the third item. If the answer to the statement "uses words" is marked "true", it is followed by the three qualifying items (i.e. "has at least ten words in his vocabulary", "if instructed could repeat up to three words in a row", "words spoken can be understood by most people"). Once the interview has progressed beyond Statement 2, the remaining items 3, 4 and 5 are always presented.

STATEMENTS 4 AND 5

These items follow the same format as Statement 3.

In addition to the Skill Profile, two accompanying data sheets are used in the interview. The Maladaptive Behavior Checklist gathers information regarding the type and frequency of inappropriate behaviors which are classified as self-stimulatory, aggressive, antisocial, and sexually inappropriate. The second form referred to as Independent Living Checklist, assesses the individual's skills regarding independent functioning capabilities for community living.

The following additional information sheets are provided to collect supplementary information from existing records and are summarized on the pre-entry answer sheet. The Personal Data Sheet contains information reflecting measured intelligence and vocational history. The Parent Data Sheet gives the receiving environment some information of parent involvement in terms of numbers of visits made by the parent to the institution or sending environment as well as the number of visits made to the home by the

individual. The Medical Data Sheet contains a brief summary of current medication, special diet, and medical or physical problems. The Program Participation Checklist yields basic descriptive information as well as a record of training programs which the individual has participated in during the six months prior to the date of the interview. Finally, the Interviewer Interaction Checklist is intended to guide the interviewer in a brief personal exchange with the individual being assessed. These seven forms along with the Skill Profile provide the basic information from which decisions regarding placement and program implementation are made.

INSTRUCTIONS TO THE INTERVIEWER

Preceding the interview, read or make the following statement to the person being interviewed:

"Good morning. I am (include name) from (name of institution or agency) . I would appreciate your answering a few questions for me about (name of individual) . Please answer by giving a true or false answer except to those questions about physical problems. This interview will only take a few minutes of your time. The information from this interview will be used to determine the best possible placement for (name of individual) to live. In order that accurate decisions can be made concerning (name of individual) , please consider your answers carefully. Are there any questions? Now we are ready to begin the interview."

SCORING

A separate answer sheet is provided which slides under the pages in the assessment booklet. Upon completion of the interview, the answer sheet will appear as a series of columns of darkened circles to represent the skills currently present in the individual's repertoire. The unmarked circles

identify behavioral deficits for which programs are needed. The information from the answer sheet may be translated into a graph which yields the individual's Skill Profile.

The Pre-Entry Instrument is intended as a screening device which maximizes time efficiency. The instrument does not attempt to yield an in-depth picture of the individual but does provide survey data for decision-making based on analysis of current skill functioning. Once the individual has been identified as a prospective candidate for present intensive, systematic training, the Post-Entry Instrument will be administered at the receiving facility. It is a more extensive, observation-based assessment tool to measure individual competence in five behavioral domains: motor development, self-help/independent living, language, cognitive, socialization. For those individuals who are not immediately transferred following pre-entry screening, the information collected during the interview provides data for programs at the sending environment which will facilitate movement back to the community.

1. Are there any physical limitations which would interfere with talking?

Yes Describe limitations.

No

INSTRUCT THE AIDE TO ANSWER TRUE OR FALSE TO THE FOLLOWING QUESTIONS.

2. USES CONVERSATIONAL SPEECH.

1. No help is needed in making his needs known.
2. Speech is generally clear and distinct.
3. Speech can be understood by a stranger.

IF THE PREVIOUS FOUR QUESTIONS ARE ANSWERED TRUE, GO ON TO THE NEXT PAGE

3. USES WORDS

1. Has at least ten phrases.
2. If instructed could repeat up to three words in a row.
3. Words spoken can be understood by most people

4. USES PHRASES.

1. Uses at least ten phrases.
2. Phrases have meaning.
3. Phrases spoken can be understood by most people.

5. USES SENTENCES.

1. Converses frequently and appropriately with others.
2. Generally speaks in complete, meaningful sentences.
3. Sentences spoken can be understood by most people

1. Are there any physical limitations which would interfere with washing self?

Yes Describe limitations.

No

INSTRUCT THE AIDE TO ANSWER TRUE OR FALSE TO THE FOLLOWING QUESTIONS.

2. WASHES SELF WITHOUT ASSISTANCE. ☐

1. Face and hands are washed at appropriate times.

2. Baths and showers are taken alone.

3. Teeth are brushed.

IF THE PREVIOUS FOUR QUESTIONS ARE ANSWERED TRUE, GO ON TO THE NEXT PAGE.

3. WASHES HANDS AND FACE WITHOUT ASSISTANCE. ☐

1. No help is needed with the water faucets.

2. Uses reasonable amount of soap.

3. Dries hands and face after washing.

4. TAKES BATH WITHOUT ASSISTANCE. ☐

1. Washes with soap.

2. Rinses off soap.

3. Dries body after bathing.

5. BRUSHES TEETH WITHOUT ASSISTANCE. ☐

1. Unscrews toothpaste top.

2. Squeezes reasonable amount of toothpaste on brush.

3. Does a good job brushing teeth.

1. Are there any physical limitations which would interfere with being toilet trained?

Yes Describe limitations

No

INSTRUCT THE AIDE TO ANSWER TRUE OR FALSE TO THE FOLLOWING QUESTIONS.

2. IS COMPLETELY TOILET TRAINED.

1. Does not need to be reminded to go to the toilet.
2. No help is needed in undressing, cleaning and dressing.
3. Can use a public toilet alone.

IF THE PREVIOUS FOUR QUESTIONS ARE ANSWERED TRUE, GO ON TO THE NEXT PAGE.

3. HAS GOOD DAYTIME CONTROL.

1. Breaks away from activities to go to the toilet.

2. Makes it to the toilet on time.

3. Attends to toilet needs without help (dressing and undressing excluded)

4. HAS GOOD NIGHTTIME CONTROL.

1. Wakes up alone.
2. Makes it to the toilet on time.
3. Attends to toilet needs without help (dressing and undressing excluded)

5. GOES TO AND RETURNS FROM TOILET WITHOUT ASSISTANCE

1. Goes to toilet by self.
2. Performs all necessary dressing and undressing without assistance.
3. Washes hands and returns promptly to former activities.

TOILET TRAINING

1. Are there any physical limitations which would interfere with dressing self?

Yes Describe limitations

No

INSTRUCT THE AIDE TO ANSWER TRUE OR FALSE TO THE FOLLOWING QUESTIONS.

2. DRESSES SELF WITHOUT ASSISTANCE.

1. No help is needed in putting on clothes.
2. No help is needed in zipping, buttoning or tying.
3. Clothes are put on correctly.

IF THE PREVIOUS FOUR QUESTIONS ARE ANSWERED TRUE, GO ON TO THE NEXT PAGE.

3. PUTS ON CLOTHES WITHOUT ASSISTANCE.

1. Puts on pull-over and front-opened clothing.
2. Puts on pants/dresses.
3. Puts on shoes (lacing and tying excluded).

4. BUTTONS OR ZIPS CLOTHES WITHOUT ASSISTANCE.

1. Uses regular sized buttons.
2. Inserts buttons in the proper button holes.
3. Closes zippers.

5. TIES SHOES WITHOUT ASSISTANCE.

1. Uses regular shoe laces.
2. Forms a bow and tightens it.
3. Shoes generally stay tied.

1. Are there any physical limitations which would interfere with undressing self?

Yes Describe limitations.

No

INSTRUCT THE AIDE TO ANSWER TRUE OR FALSE TO THE FOLLOWING QUESTIONS.

2. UNDRESSES SELF WITHOUT ASSISTANCE.

1. No help is needed in pulling off clothes (back buttons and zippers excluded).
2. No help is needed in unbuttoning, unzipping or untying.
3. Returns clothes to storage (drawer, hanger, hook).

IF PREVIOUS FOUR QUESTIONS ARE ANSWERED TRUE, GO ON TO THE NEXT PAGE.

3. PULLS OFF CLOTHES WITHOUT ASSISTANCE.

1. Pulls off pull-over and front-opened clothing.
2. Pulls off pants/dress.
3. Pulls off shoes (unlacing and untying excluded).

4. UNBUTTONS OR UNZIPS CLOTHES WITHOUT ASSISTANCE.

1. Unbuttons shirts or pants before trying to take them off.
2. Opens zippers and snaps.
3. Does not get twisted up in clothing when removing it.

5. UNTIES SHOES WITHOUT ASSISTANCE.

1. Pulls at laces to untie bow.
2. Unlaces shoes.
3. Pulls foot out of the shoe.

1. Are there any physical limitations which would interfere with feeding self?

Yes Describe limitations

No

INSTRUCT THE AIDE TO ANSWER TRUE OR FALSE TO THE FOLLOWING QUESTIONS.

2. FEEDS SELF WITHOUT ASSISTANCE.

1. Feeds self at the table.
2. No help is needed in manipulating eating utensils.
3. Table behavior is generally acceptable.

IF THE PREVIOUS QUESTIONS ARE ANSWERED TRUE, GO ON TO THE NEXT PAGE.

3. DRINKS FROM A CUP WITHOUT ASSISTANCE

1. No help is needed in holding the cup.
2. Lifts the cup off the table to drink.
3. Drinks liquids from a cup with little or no spilling or drolling.

4. USES A SPOON

1. Semi-solid foods such as cereals are eaten with a spoon with little or no spilling.
2. Liquid foods such as soups are eaten with a spoon with little or no spilling.
3. The spoon is filled with one mouthful of food at a time.

5. USES A FORK.

1. Separates large-sized foods with the fork.
2. Spears bite-sized pieces of food with the fork.
3. Directs food on the fork into the mouth without dropping it.

1. Are there any physical limitations which would interfere with walking?

Yes Describe limitations

No

INSTRUCT THE AIDE TO ANSWER TRUE OR FALSE TO THE FOLLOWING QUESTIONS.

2. WALKS CORRECTLY WITHOUT ASSISTANCE.

1. No help is needed in sitting.
2. No help is needed in standing.
3. If fully capable of sitting, standing and walking alone.

IF THE PREVIOUS FOUR QUESTIONS ARE ANSWERED TRUE, GO ON TO THE NEXT PAGE.

3. SITS CORRECTLY WITHOUT ASSISTANCE.

1. Pulls self to a sitting position and sits alone without help.
2. Maintains adequate balance.
3. Sits down from a standing position.

4. STANDS CORRECTLY WITHOUT ASSISTANCE.

1. Pulls self to a standing position and stands alone without help.
2. Maintains adequate balance.
3. Stands from a sitting or lying position.

5. WALKS CORRECTLY WITHOUT ASSISTANCE.

1. No help is needed in walking forward or backward.
2. Maintains adequate balance.
3. Walks up and down stairs.

NAME: _____ RESIDENCE: _____ INTERVIEWER: _____

ID NUMBER: _____ AGE: _____

DATE: _____

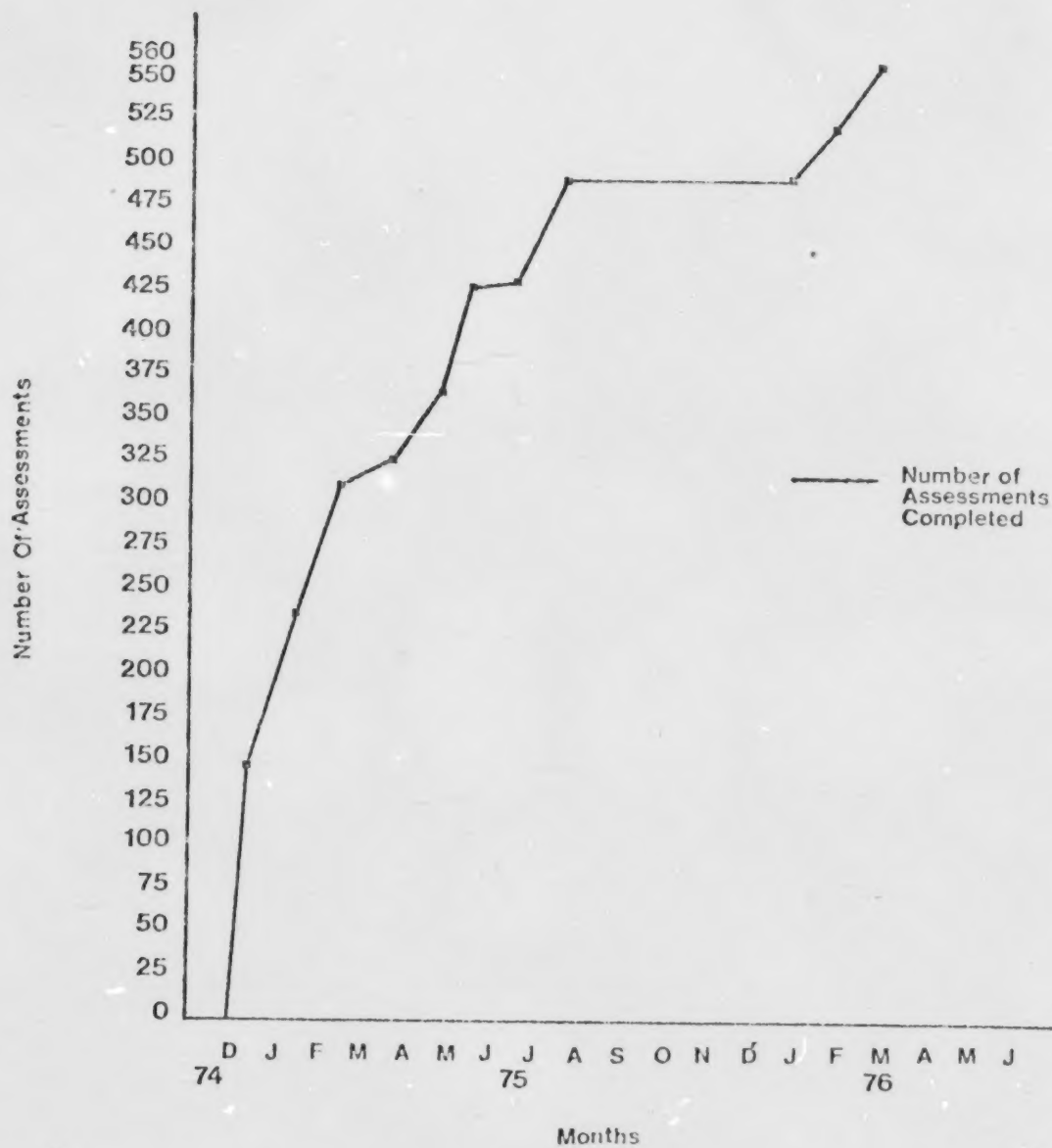
7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	GROSS MOTOR SKILLS
6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	TABLE BEHAVIOR
5	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	UNDRESSING
4	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	DRESSING
3	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	TOILET TRAINING
2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	PERSONAL HYGIENE
1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	LANGUAGE
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COMMENTS:

104

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PRE-ENTRY ASSESSMENTS



APPENDIX B

Post-Entry Instrument

B1 - 35	Post-Entry Instrument
B36	Guidelines for Report-Based Items
B37 - 40	Report-Based Items
B41 - 45	Answer Sheets
B46	Summary of Post-Entry Scores
B47	Post-Entry Instrument: Answer Sheet for paper and pencil items
B48	Program Assessment Profile
B49	Personal Data Sheet
B50	Staff Questionnaire

SEVTC ASSESSMENT SCALES FOR DEINSTITUTIONALIZATION
OF SEVERELY/PROFOUNDLY HANDICAPPED

PART II

POST-ENTRY MONITORING

POST-ENTRY MONITORING

Instructions for Administration and Scoring

The SEVTC-Assessment Scales for Deinstitutionalization provide a three-phase assessment/prescription system designed to assist program decision making for individuals with mental retardation problems to live in the least restrictive environment. Based on this three-phase model which conceptualizes community integration as a series of successive transfers from (1) a restrictive institutional or non-programmatic environment through (2) specialized short-term, program-oriented habilitation facilities to (3) the least restrictive community-living alternative, three criterion-referenced instruments (which assess the individual's competence in critical skill areas specific to each of the three phases of the proposed model) have been developed and validated.

The Post-Entry Instrument is the second in a series of three assessment/prescription instruments designed for the use of individuals, agencies, and short-term facilities which are involved in preparing individuals with mental retardation problems for community entry. Once the transfer from the sending environment to a short-term, community-based facility has been accomplished, the individual finds himself in an environment which emphasizes systematic exposure to training. At the post-entry level, a detailed instrument was needed which not only allowed the gathering of reliable and valid information regarding the individual's observed level of functioning but which also made provisions for monitoring behavioral changes resulting from programmatic intervention. Therefore, the primary objective at the post-entry level was to develop and validate an extensive observation-based instrument sensitive enough to measure relatively small changes of behavior.

Format

The Post-Entry Instrument uses the observational method in a criterion-referenced approach to measurement, with emphasis on identifying individual performance levels relative to a prespecified criterion. The instrument consists of five

separate subscales in the following behavioral domains: Motor Development, Self-Help/Independent Living, Academic/Cognitive, Language, and Socialization. Each subscale contains a hierarchy of five levels, ranging from Level I, representing characteristic behaviors of the minimally functioning individual, to Level V which describes independently functioning individuals.

The item format is designed so that each item appears as a behavioral objective, e.g. "Putting shapes into a shape-sorting box." The item itself is followed by a descriptive paragraph containing the conditions under which the observations are to be made and clearly specified criteria for making scoring decisions. In addition to standardizing the conditions under which the behaviors are to be observed, the cues to be used to elicit the behavior also have been standardized.

Criterion behaviors can be observed under one of the following stimulus conditions:

- SI - self-initiated; i.e., the individual being assessed independently performs the skill without being cued.
- VC - verbal cue which is specified for each item where appropriate.
- MC - modeling cue; i.e., the observer models and performs the desired behavior for the individual. Modeling cues are always followed by a repetition of the verbal cue.
- PC - physical cue; i.e., the observer initiates the desired behavior using physical guidance. This type of cueing is often referred to as graduated guidance training. Again, the physical cue is always followed by a repetition of the verbal cue.
- N - no response; i.e., the person fails to make an observable response, even after the behavior has been initiated for him.

By the time an individual has progressed to Level IV, physical cues are generally no longer used to elicit a given behavior. The rationale behind this is that the higher levels of functioning indicate greater readiness for community living, which generally requires responsiveness to verbal or visual cues without additional prompting. Although modeling and physical cueing are an integral part of a training environment, they usually are not given outside of a teaching context. Therefore, at Level V, the responses are recorded as "all or none"

behaviors.

Administration

The Post-Entry Instrument relies primarily on direct observation of the individual in question, and therefore, requires his active participation in the assessment process. A number of items on the five subscales require additional assessment materials. Most of these are objects commonly used in training and teaching environments. Page of the test book presents a list of the required materials by subscale, level, and item number. Although users of the Post-Entry Instrument are encouraged to experiment with these instructional materials, once a set of materials has been decided upon, it should be used for all individuals assessed, because there is reason to believe that different types of assessment materials will lead to qualitatively different responses.

Although the majority of items on the Post-Entry Instrument are assessed by direct observation, some items are scored on the basis of indirect reports gathered from a person who has a thorough knowledge of the individual being assessed and has worked with him for a minimum of at least 3 months. This was necessary for items such as "assumes responsibility" (Socialization, Level V, Item 2) for which it is difficult to stage an event which could be directly and immediately observed and would produce a valid response. All items which are assessed on the basis of indirect report are asterisked on the test pages as well as on the answer sheets and are summarized on pages 37-40 of the test book. To facilitate the flow of the assessment process, it is recommended that the asterisked items be bypassed initially and that the observer arranges for the information on the report-based items after his own observations have been made. Specific guidelines for administering the report-based items are found on page 36 of this book.

Instructions to the Observer

The observer is instructed always to introduce himself to the individual he is observing and to address him by his first name when he requests the performance

of a specific behavior. Since many of the tasks appearing on the subscales may be regarded as relatively odd by the person asked to perform the behavior, the individual should be told something like the following by the observer:

"I want you to do a lot of things for me today that you may think are silly. Please do them anyway so I can see how many things you can do well."

A statement along this line will help to put the individual at ease and helps to create a good rapport between the person being observed and the observer.

It is important that the observer not deviate from guidelines established for each item so that the standardized administration of each item is guaranteed. In the case of behaviors which the individual may perform on his own initiative without being cued, it is recommended that the observer wait a few moments, allowing the individual to make the response independently, before using the verbal cue.

All modeling cues are followed by a verbal cue. When making the verbal request, the observer stresses in his speech the fact that the individual is now to perform the skill. For example, in the case of an item such as copying a circle, the observer, after having drawn a circle, might say: "now, (name), you draw a circle."

Successful performance of a behavior should be followed by praise. This is the only type of verbal feedback to be given by the observer. Although the observer may think negative comments are warranted by a performance, simply ignore it and praise commendable output.

Scoring

A separate scoring sheet (Post-Entry Instrument, Answer Sheet) is provided for each subscale containing the five levels. During the observation, the answer sheet is placed under the corresponding page of the test book. Depending upon the level at which the individual performs a given behavior (self-initiated with verbal, modeling, physical cue, or making no response), the observer blackens the appropriate circle to indicate the performance level, based on the type of cue required to elicit the criterion behavior. The score associated with each

performance level appears directly below each circle.

To arrive at the total score for a given level, the scores corresponding to each circle checked are added, and the total number is entered in the box labeled "Level Score" at the bottom of each level. Another score, labeled "Total Number of Criterion Behaviors Performed", refers simply to how many of the five possible behaviors within a given level score were observed but disregards the type of cue required. This score is included as a quick reference score to indicate the level attained. Qualifying for a given level, depending upon how stringent a criterion for level attainment is used. It must be emphasized, however, that the criterion for qualifying for a given level of functioning has to be specified in advance and must be uniformly employed.

Finally, by adding all the scores obtained for each individual level, a total score is computed for the subscale representing the total skill competency. The total score for each subscale is subsequently plotted on a graph, which will yield the individual's Program Assessment Profile. Profile sheets are provided with the answer sheets.

The scores derived from the Post-Entry Instrument are intended to be interpreted in a flexible, programmatic manner rather than by an abstract number. For example, an individual obtaining a score of 45 on the Motor Development subscale is best described in terms of the motor skills he has mastered, (i.e. he can sit, stand, walk, and jump) and in terms of the motor programs which need to be implemented for him to reach the next higher level of functioning (i.e. programs teaching the individual to run, climb, catch a ball, etc.). Thus, interpreting a given score follows a dichotomized statement of mastery and deficit skills. Page 41 of the test book gives an example of how post-entry scores may be summarized.

The Post-Entry Instrument may be used for baseline assessments. In this case the observations commence at Level I, Item 1 of each subscale. Observations are continued upward until three consecutive items are failed, and the

observer resumes his observations on the next subscale. Furthermore, the Post-Entry Instrument may also be employed in monitoring the acquisition of skills on a specific subscale such as motor development or language. Finally, the Post-Entry Instrument, in addition to maintaining up-to-date behavioral records, provides a potential tool for program evaluation when it is used to compare the assessment of the individual's status before programmatic intervention (pre-test) and the assessment of his status following the application of programmatic intervention (post-test). Therefore, facilitating programmatic decisions, evaluating training programs, and providing a data collection tool for diagnostic observation are examples of practical applications of the Post-Entry Instrument for professionals, paraprofessionals and various agencies involved in preparing individuals with mental retardation problems for community entry.

Assessment Materials Necessary for Each Developmental Area

MOTOR DEVELOPMENT

<u>Item</u>	<u>Level</u>	<u>Material</u>
1	I	cookie
4	I	tennis ball
5	I	raisin
1	II	blocks
4	II	10-inch ball
5	II	sorting shape box
1	III	10-piece puzzle
3	III	a box, 15 inches long, 12 inches wide, and 15 inches high
4	III	12-inch circle target (paper or cardboard)
5	III	flashcard with two lines of different lengths
1	IV	scissors, printed triangle
5	IV	flashcard with 2 inch circle
1	V	assembling kit (toy kit, first aid kit, etc.)
4	V	bat

SELF-HELP/INDEPENDENT LIVING

<u>Item</u>	<u>Level</u>	<u>Material</u>
1	I	semi-solid food (cereal, mashed potatoes, apple sauce, etc.)
2	I	cracker
3	I	juice, drinking cup
1	II	bowl of cereal, spoon
3	II	soft drink bottle/can
1	III	fork, knife, piece of meat
2	IV	flashcard with addition and subtraction problems

<u>Item</u>	<u>Level</u>	<u>Material</u>
1	V	flashcard with biographical data
2	V	money
3	V	wrist watch or clock

ACADEMIC/COGNITIVE

<u>Item</u>	<u>Level</u>	<u>Material</u>
1	I	flashcard, whistle
3	I	marble
5	I	paper and pencil
3	II	color blocks or color flashcards
4	II	circle, square, triangle, rectangle
5	II	pictures of food types
2	III	flashcard with individual's first and last names
5	III	paper and pencil
2	IV	flashcard with directions (pull, push, enter, exit, stop)
3	IV	flashcard with printed numbers 1-100
4	IV	calendar
5	IV	four-picture sequence
1	V	money
2	V	simple story
3	V	measuring cup, water
4	V	ruler
5	V	two-picture sequence

LANGUAGE

<u>Item</u>	<u>Level</u>	<u>Material</u>
4	II	ball, chair
3	III	picture of a dog

ItemLevelMaterial

2

IV

picture facilitating the use of adjectives,
(e.g. depicting large or small objects)

4

IV

picture depicting opposites: small/large,
thin/fat, short/tall, etc.

2

V

picture of a man

LEVEL I

1. REACHING

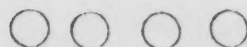
Resident is seated at table. A cookie is placed within reach.

VC: *"Pick up the cookie."*

MC: Move your hand toward the cookie; repeat VC.

PC: Take resident's hand and guide it toward the cookie; repeat VC.

REACHING FOR THE COOKIE CONSTITUTES CRITERION PERFORMANCE.

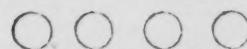
2. SITTING

VC: *"Sit on this chair until I say get up."*

MC: Move to the chair and sit down; repeat VC.

PC: Guide resident to the chair and into a sitting position; repeat VC.

REMAINING SEATED FOR 1 MINUTE CONSTITUTES CRITERION PERFORMANCE.

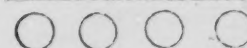
3. STANDING WITH ASSISTANCE

VC: *"Stand up."*

MC: Pull yourself from a sitting into a standing position; repeat VC.

PC: Place resident's hands on the table and lift him off the chair; repeat VC.

STANDING FOR 1 MINUTE WITH SUPPORT CONSTITUTES CRITERION PERFORMANCE.

4. ROLLING BALL

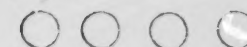
Ask resident to sit on the floor and hand him a tennis ball.

VC: *"Roll the ball to this box."*

MC: Pick up the ball and roll it forward; repeat VC.

PC: Sit behind resident and place it over the ball; repeat VC.

ROLLING THE BALL 2 FT. TOWARD THE BOX CONSTITUTES CRITERION PERFORMANCE.

5. GRIPPING

Resident is seated at the table with raisins in front of him.

VC: *"Pick up the raisin."*

MC: Place your thumb and forefinger over the raisin and pick it up. Return the raisins to the table; repeat VC.

PC: Guide resident's thumb and forefinger of the raisin; repeat VC.

PICKING UP THE RAISIN USING FINGER/THUMB CONSTITUTES CRITERION PERFORMANCE.

LEVEL II

PICKING UP BLOCKS

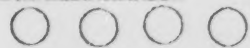
Resident is seated. Place 2 blocks on the table in front of resident.

VC: "Pick up the blocks in one hand."

MC: Place your hand over the blocks and lift them up; repeat VC.

PC: Take resident's right hand and place it over the 2 blocks; repeat VC.

LIFTING BOTH BLOCKS WITH ONE HAND FROM THE TABLE CONSTITUTES CRITERION PERFORMANCE.

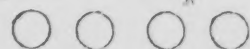
STANDING WITHOUT ASSISTANCE

VC: "Stand up."

MC: Stand up; repeat VC.

PC: Lift resident to a standing position; repeat VC.

STANDING FOR 2 CONSECUTIVE MINUTES WITHOUT SUPPORT CONSTITUTES CRITERION PERFORMANCE.

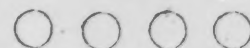
WALKING FORWARD

VC: "Walk."

MC: Walk six steps forward; repeat VC.

PC: Place your hand on resident's right leg and move it forward from behind; repeat VC.

WALKING SIX STEPS WITHOUT FALLING CONSTITUTES CRITERION PERFORMANCE.

KICKING BALL

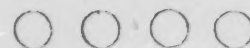
Place a 10 inch ball in front of the standing resident.

VC: "Kick the ball."

MC: Take your right foot and kick the ball forward; repeat VC.

PC: Place your hand around the ankle of resident's foot and bring the tip of his foot close to the ball; repeat VC.

KICKING THE BALL WITH ONE FOOT WITHOUT FALLING CONSTITUTES CRITERION PERFORMANCE.

5. SORTING SHAPES

Resident is seated at the table with a shape-sorting box and 6 different shapes in front of him.

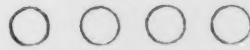
VC: "Pick up 2 shapes and drop them in the box."

MC: Pick up 2 shapes and drop them in the box; repeat VC.

PC: Place resident's hand over one shape and guide his hand directly over the corresponding opening; repeat VC.

PICKING UP 2 OF THE 6 SHAPES AND DEPOSITING THEM INTO THE CORRESPONDING OPENINGS CONSTITUTES CRITERION PERFORMANCE.

LEVEL III

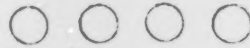
1. COMPLETING 10-PIECE PUZZLE

Resident is seated at the table in front of a random array of puzzle pieces.

VC: *"Put the pieces together."*

MC: Put the pieces of the puzzle together to form a picture, randomly rearrange the pieces; repeat VC.

COMPLETING THE PUZZLE CONSTITUTES CRITERION PERFORMANCE.

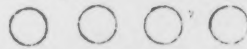
2. BALANCING

VC: *"Stand on one foot until I say stop."*

MC: Balance on one foot for 30 seconds; repeat VC.

PC: Kneel behind resident, touch his left leg; repeat VC.

BALANCING ON ONE FOOT FOR 30 SECONDS CONSTITUTES CRITERION PERFORMANCE.

3. JUMPING OVER OBSTACLE

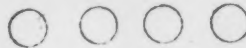
Place a box 15 inches long, 12 inches wide and 15 inches high in front of resident.

VC: *"Jump over the box."*

MC: Jump over the box; repeat VC.

PC: Guide resident in front of the box; repeat VC.

JUMPING OVER THE BOX CONSTITUTES CRITERION PERFORMANCE.

4. THROWING BALL AT TARGET

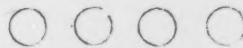
Mount the 12-inch-circle target contained in the kit on the wall. Ask resident to stand 6 ft. from the wall and hand him a tennis ball.

VC: *"Throw the ball at the circle on the wall."*

MC: Take the ball and throw it on the wall hitting the circle; repeat VC.

PC: Take resident's hand, place it over the ball and move his arm backward; repeat VC.

HITTING THE CIRCLE ON THE WALL 2 OUT OF 3 TIMES CONSTITUTES CRITERION PERFORMANCE.

5. PICKING THE LONGER LINE

Show the resident the flashcard with two lines of different length contained in the kit.

VC: *"Show me the longer line."*

MC: Point to the longer line; repeat VC.

POINTING TO THE LONGER LINE CONSTITUTES CRITERION PERFORMANCE.

LEVEL IV

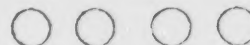
1. USING HAND TOOLS

Show resident the paper with the printed triangle and the scissors contained in the kit.

VC: *"Cut out the triangle."*

MC: Cut out a sample of a triangle; repeat VC.

PC: Place the resident's hand over the scissors and guide it to the triangle; repeat VC.
CUTTING OUT THE TRIANGLE CONSTITUTES CRITERION PERFORMANCE.

2. CLIMBING UP/DOWN CHAIR

Show resident to stand in front of a chair.

VC: *"Climb up the chair and come down."*

MC: Climb up/down the chair; repeat VC.

PC: Take resident's right foot and guide it to the seat of the chair; repeat VC.
CLIMBING UP/DOWN CHAIR CONSTITUTES CRITERION PERFORMANCE.

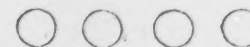
3. RUNNING 10 FEET

Show the resident outside.

VC: *"Run from _____ to _____."*

MC: Run 10 feet, return to resident; repeat VC.

RUNNING 10- FEET WITHOUT FALLING CONSTITUTES CRITERION PERFORMANCE.

4. CATCHING A BALL

Bounce a tennis ball standing 6 ft. away from resident.

VC: *"Catch the ball."*

MC: Bounce the ball in front of yourself and catch it; repeat VC.

PC: Stand behind resident and let the ball bounce in front of him; repeat VC.

CATCHING THE BALL WITH TWO HANDS ONCE OUT OF 3 TRIALS CONSTITUTES CRITERION PERFORMANCE.

5. COPYING A CIRCLE

Show the resident the flashcard with the circle contained in the kit.

VC: *"Draw a circle."*

MC: Draw a circle; repeat VC.

PC: guide the resident's hand to pick up the pencil and place it on the paper; repeat VC.
PRODUCING AN ENCLOSED FORM ON THE PAPER CONSTITUTES CRITERION PERFORMANCE.

LEVEL V

1. ASSEMBLING KIT

Present the resident with the non-assembled plastic kit materials.

VC: *"Put the pieces together."*

MC: Assemble the kit so that the first five pieces fit; repeat VC.

ASSEMBLING THE KIT CONSTITUTES CRITERION PERFORMANCE.

2. SKIPPING 10 FEET

Take resident outside.

VC: *"Skip from _____ to _____."*

MC: Skip forward using alternate feet, return to resident; repeat VC.

SKIPPING 10 FEET USING ALTERNATE FEET CONSTITUTES CRITERION PERFORMANCE.

3. PARTICIPATING IN TEAM SPORTS*

The item is passed if staff member/parent reports that the resident actively participates in team sports (basketball, volleyball) independently or with verbal cue.

4. BATTING A BALL

Hand resident a bat and take a position about 5 feet away from him. Throw him the ball.

VC: *"Hit the ball with the bat."*

MC: Take the bat in one hand and the ball in the other and strike the ball with the bat.

Return the bat to the resident; repeat VC.

STRIKING THE BALL WITH THE BAT ONE OF THREE TIMES CONSTITUTES CRITERION PERFORMANCE.

5. DRAWING A PERSON

Hand resident a piece of paper and pencil

VC: *"Draw a person with six different parts."*

MC: Draw a person to include head, eyes, nose, mouth, torso, arms, hands, legs and feet.

Remove the drawing; repeat VC.

DRAWING A FIGURE OF A PERSON HAVING AT LEAST SIX PARTS CONSTITUTES CRITERION PERFORMANCE.

*Item is assessed on the basis of the report of the staff member/parent.

LEVEL I

1. RETAINING SEMI-SOLID FOOD

Observe resident being fed. RETAINING SEMI-SOLID FOOD FROM THE SPOON WITHOUT SPITTING, DROOLING, OR REJECTING IT CONSTITUTES CRITERION PERFORMANCE.

2. GRASPING FINGER FOOD AND FEEDING SELF

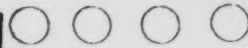
Offer resident a cracker.

VC: "Eat the cracker."

MC: Break the cracker and take a bite and eat it; repeat VC.

PC: Place resident's hand on the cracker; repeat VC.

GRASPING THE CRACKER AND EATING IT CONSTITUTES CRITERION PERFORMANCE.

3. DRINKING FROM CUP

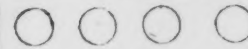
Place a cup of juice in front of the resident.

VC: "Drink your juice."

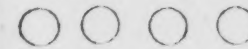
MC: Lift up the cup and bring it to your mouth; repeat VC.

PC: Place resident's hand around the cup and guide it to his mouth; repeat VC.

LIFTING THE CUP, BRINGING IT TO THE MOUTH, AND DRINKING FROM IT WITH LITTLE OR NO SPILLING CONSTITUTES CRITERION PERFORMANCE.

4. COOPERATING PASSIVELY DURING DRESSING AND UNDESSING*

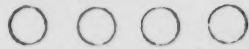
The item is passed if staff member/parent reports that the resident cooperates passively in dressing and undressing.

5. MAINTAINING DRY PANTS/DIAPERS*

The item is passed if the staff member/parent reports that the resident maintains dry pants/diapers for 2 hours.

*Item is assessed on the basis of the report of the staff member/parent.

LEVEL II

1. EATING WITH A SPOON

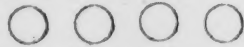
Place a bowl of cereal and a spoon in front of the resident.

VC: "Take a bite of cereal."

MC: Place some cereal on the spoon and bring it to your mouth; repeat VC.

PC: Put some cereal on the spoon and place resident's hand on the handle; repeat VC.

EATING WITH A SPOON WITH LITTLE OR NO SPILLING CONSTITUTES CRITERION PERFORMANCE.

2. WASHING HANDS AND FACE

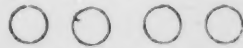
Take resident to the bathroom, turn on the water, and hand him a bar of soap.

VC: "Wash your hands."

MC: Wash your hands under the running water; repeat VC.

PC: Place the bar of soap into resident's hands and guide them over the sink; repeat VC.

COMPLIANCE WITH THE REQUEST TO WASH HIS HANDS CONSTITUTES CRITERION PERFORMANCE.

3. DRINKING FROM SOFT-DRINK BOTTLE OR CAN

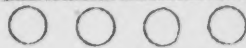
Hand resident a soft-drink bottle or can.

VC: "Drink your soda."

MC: Bring the can or bottle to your mouth and tip it slightly; repeat VC.

PC: Place the resident's hand around the can or bottle and guide it to his mouth; repeat VC.

DRINKING FROM THE CAN OR BOTTLE WITHOUT SPILLING CONSTITUTES CRITERION PERFORMANCE.

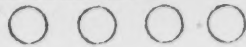
4. ASSISTING IN DRESSING AND UNDESSING

VC: "Put on your jacket."

MC: Put on your jacket; repeat VC.

PC: Place resident's arm in one sleeve; repeat VC.

HOLDING OUT ARM, PULLING JACKET OVER SHOULDERS OR MOVING BODY PARTS TO ASSIST IN PUTTING ON THE JACKET CONSTITUTES CRITERION PERFORMANCE.

5. USING TOILET WHEN PLACED*

The item is passed if staff member/parent reports that the resident uses the toilet when being placed there.

*Item is assessed on the basis of the report of the staff member/parent.

LEVEL III

2. USING EATING UTENSILS

○ ○ ○ ○

Place a plate with a piece of meat and a knife and fork in front of the resident.

VC: *"Cut the meat and eat it."*

MC: Take fork and knife, cut a piece of meat and eat it; repeat VC.

PC: Place resident's hand over fork and knife and guide them to the meat; repeat VC.

PUTTING THE MEAT WITH THE KNIFE WHILE HOLDING IT DOWN WITH THE FORK CONSTITUTES CRITERION PERFORMANCE.

3. TAKING CARE OF PERSONAL HYGIENE*

○ ○ ○ ○

The item is passed if staff member/parent reports that the resident takes care of personal hygiene by himself or with verbal cue. CRITERION PERFORMANCE INCLUDES WASHING OWN BODY BY TAKING BATH/SHOWER, BRUSHING TEETH, COMBING HAIR, ETC.

4. ATTENDING 80-90% OF SCHEDULED ACTIVITIES*

○ ○ ○ ○

The item is passed if staff member/parent reports that the resident voluntarily or with verbal cue attends scheduled activities 80-90% of the time.

6. DRESSING AND UNDRESSING INDEPENDENTLY

○ ○ ○ ○

VC: *"Put on your jacket and take it off again."*

MC: Put on your jacket; repeat VC.

PC: Hand resident his jacket; repeat VC.

PUTTING ON THE JACKET AND TAKING IT OFF WITHOUT ASSISTANCE (INCLUDING BUTTONING AND UNBUTTONING) CONSTITUTES CRITERION PERFORMANCE.

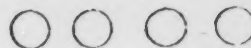
5. USING TOILET BY SELF WITH NO ACCIDENTS*

○ ○ ○ ○

The item is passed if staff member/parent reports that the resident uses the toilet by himself or with verbal reminder with no accidents.

*Item is assessed on the basis of the report of the staff member/parent.

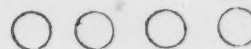
LEVEL IV

1. PREPARING SIMPLE MEALS*

The item is passed if the staff member/parent reports that resident prepares simple meals independently, with verbal or modeling cue. CRITERION PERFORMANCE INCLUDES THE PREPARATION OF CEREALS, SANDWICHES, AND HEATING UP T.V. DINNERS.

2. SOLVING SIMPLE ADDITION AND SUBTRACTION PROBLEMS

Ask resident to add 3 plus 5 and 4 plus 11. Ask him to subtract 7 from 9 and 6 from 18. OBTAINING THE CORRECT ANSWER EITHER ORALLY OR WRITTEN TO ONE OF THE TWO ADDITION AND SUBTRACTION PROBLEMS CONSTITUTES CRITERION PERFORMANCE. If the answer to the first problem is correct, do not present the second one. Make a notation on the answer sheet if either addition or subtraction are performed correctly.

3. COMPLETING 75-90% OF TASKS WITH LITTLE ATTENTION*

The item is passed if the staff member/parent reports that 75-90% of the assigned tasks are completed voluntarily or upon verbal request with minimal attention and supervision.

4. USING THE TELEPHONE PROPERLY*

The item is passed if the staff member/parent reports that the resident receives and makes telephone calls using private lines independently or upon verbal request.

5. TRAVELING INDEPENDENTLY TO/FROM BUILDINGS*

The item is passed if the staff member/parent reports that the resident travels around independently or upon verbal request. CRITERION PERFORMANCE INCLUDES TRAVELING AROUND THE IMMEDIATE NEIGHBORHOOD BY FOOT OR BIKE.

*Item is assessed on the basis of the report of the staff member/parent.

LEVEL V

FILLING IN BIOGRAPHICAL INFORMATION INDEPENDENTLY

O O O C

Show the resident the flashcard with biographical items contained in the kit.

VC: "Write your name, when you were born, how old you are, and where you live."

COMPLETING 3 OUT OF 4 ITEMS OF BIOGRAPHICAL INFORMATION CONSTITUTES CRITERION PERFORMANCE.

COUNTING CHANGE CORRECTLY

O O O C

Place \$1.89 in front of the resident. Give him four dimes, three nickels, and six pennies.

VC: "How much change do you need to add to this to make \$2.00?"

MC: Take one dime and one penny and say: "there is \$2.00." Replace the change; repeat VC

MAKING THE CORRECT CHANGE CONSTITUTES CRITERION PERFORMANCE.

TELLING THE TIME

O O O C

Show the resident your wrist watch.

VC: "What time is it?"

MC: Tell the resident the time from your wrist watch and then set the large hand 10 minutes ahead; repeat VC. Repeat with two different times (9:45 and 5:10)

TELLING THE TIME CORRECTLY TO THE 5-MINUTE INTERVAL CONSTITUTES CRITERION PERFORMANCE.

DISPLAYING AN INTEREST IN FINDING A JOB*

O O O C

The item is passed if the staff member/parent reports that the resident expresses an interest in finding a job or is successfully involved in vocational training.

MANAGING HIS OWN MONEY*

O O O C

The item is passed if the staff member/parent reports that the resident handles money of his own independently or with assistance.

*Item is assessed on the basis of the report of the staff member/parent.

LEVEL I

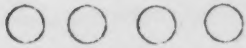
1. DISPLAYING OBSERVABLE REACTION TO SENSORY STIMULI

Take a flashlight and flash it at the resident. If no response, blow a whistle.
DISPLAYING OBSERVABLE REACTION TO THE LIGHT OR SOUND SUCH AS TURNING TO THE SOURCE OF STIMULATION CONSTITUTES CRITERION PERFORMANCE.

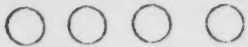
2. RESPONDING TO NAME IN GROUP SITUATION

Call the resident by his name during a group training session.

VC: "Look at me."
TURNING TO YOUR VOICE OR VERBALLY ANSWERING THE CALL CONSTITUTES CRITERION PERFORMANCE.

3. EXPLORING OBJECTS

Put a marble in front of the resident. LIFTING UP THE MARBLE, ROLLING IT OR MANIPULATING IT IN AN OBSERVABLE FASHION ON HIS OWN INITIATIVE CONSTITUTES CRITERION PERFORMANCE.

4. ATTENDING TO TASK FOR 5 MINUTES

The item is passed if the staff member/parent reports that the resident attends to a given activity for 5 minutes without interruption or distraction.

5. MAKING MARKS ON PAPER

Hand the resident a piece of paper and pencil.

VC: "Make some marks."

MC: Scribble on the paper; repeat VC.

PC: Place the resident's hand around the pencil and guide it to the paper; repeat VC.

SCRIBBLING RIGHT TO LEFT, UP AND DOWN, OR IN CRUDE CIRCLES CONSTITUTES CRITERION PERFORMANCE.

LEVEL II

ATTENDING TO SIMPLE TASK FOR 15 MINUTES*

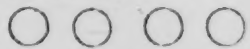
The item is passed if the staff member/parent reports that the resident attends to assigned tasks for 15 minutes voluntarily or upon verbal request.

KNOWING OWN NAME AND AGE

VC: "What is your first name, last name. How old are you?"

MC: Say "my name is _____ and I am _____ years old;" repeat VC.

CORRECTLY NAMING HIS AGE AND NAME CONSTITUTES CRITERION PERFORMANCE.

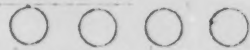
IDENTIFYING BASIC COLORS

Show the resident the following eight colors (paper or blocks), one at a time: red, green, blue, yellow, black, white, purple and orange. For each color say:

VC: "What color is this?"

MC: Hold up the red color and say: "this is red." Show the resident blue; repeat VC.

NAMING FOUR OUT OF FIVE COLORS CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

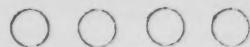
IDENTIFYING BASIC SHAPES

Show the resident the following shapes, one at a time: circle, square, triangle, rectangle. For each shape say:

VC: "What shape is this?"

MC: Hold up the circle and say: "this is a circle." Show the resident the triangle; repeat VC.

NAMING THREE OUT OF FOUR SHAPES CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

RECOGNIZING SIMPLE FOODS

Show the resident pictures of the following types of food, one at a time: fruits, vegetables, meat, bread, milk.

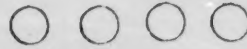
VC: "What type of food is this?"

MC: Hold up the meat and say: "this is meat." Show the resident the fruits; repeat VC.

LABELING THREE OUT OF FIVE FOODS CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

Item is assessed on the basis of the report of the staff member/parent.

LEVEL III

1. ATTENDING TO TASK FOR 45 MINUTES*

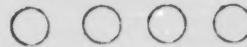
The item is passed if staff member/parent reports that the resident attends to a task for 45 minutes voluntarily or upon verbal request.

2. READING OWN FIRST AND LAST NAME

Take a piece of paper and write down the resident's first and last name.

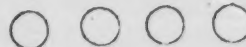
VC: "Read this."

READING HIS FIRST AND LAST NAME CONSTITUTES CRITERION PERFORMANCE.

3. SAYING NUMBERS 1-100 BY ROTE

VC: "Tell me the numbers from 1-10. Then I am going to say a number and you tell me what number comes next (24, 31, 76, 91)."

MC: Begin counting to 6 and ask resident to continue; repeat second part of VC.
COUNTING FROM 1 to 10 AND GIVING TWO CORRECT NUMBERS FOLLOWING THE ONES QUOTED BY THE OBSERVER CONSTITUTES CRITERION PERFORMANCE.

4. SAYING ALPHABET BY ROTE

VC: "Tell me the letters in the alphabet from A to Z."

MC: Begin calling out the letters from A to G and say, "you tell me the next letters now."
CALLING OUT THE LETTERS OF THE ALPHABET WITHOUT SKIPPING MORE THAN 5 LETTERS CONSTITUTES CRITERION PERFORMANCE.

5. WRITING OWN SIGNATURE

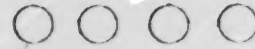
Provide the resident with a piece of paper and pencil.

VC: "Write your first and your last name."

MC: Write down the resident's first name; repeat VC.
WRITING HIS SIGNATURE CONSTITUTES CRITERION PERFORMANCE.

*Item is assessed on the basis of the report of the staff member/parent.

LEVEL IV

1. ATTENDING TO TASK FOR 1 HOUR WITHOUT FATIGUE*

The item is passed if the staff member/parent reports that the resident attends to task voluntarily or upon verbal request for 1 hour without fatigue.

2. READING SIMPLE DIRECTIONS

Show the resident the flashcards contained in the kit, one at a time.

VC: "Read this card."

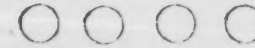
MC: Hold up card number 1 and read it; take out card number 2; repeat VC.
READING THREE OF THE FIVE DIRECTIONS CONSTITUTES CRITERION PERFORMANCE.

3. RECOGNIZING WRITTEN NUMBERS UP TO 100

Show the resident the flashcard listing the numbers 1-100. Point out the following numbers one at a time: 25, 9, 64, 48, 71, 13, 94, 57. For each number say:

VC: "Tell me what this is."

MC: Point to 25, 9, 64, and say: "this is 25, 9, 64." Point to 48; repeat VC.
NAMING FIVE OUT OF EIGHT NUMBERS CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

4. LOCATING CURRENT DATE ON CALENDAR

Show the resident a calendar with the current month.

VC: "Show me today's date."

MC: Point to the first of the month and say: "this was the first of ____ (month); repeat VC.

POINTING OUT TODAY'S DATE CONSTITUTES CRITERION PERFORMANCE.

5. PLACING 4 PICTURES IN SEQUENCE

Present the resident with the set of 4 pictures from the kit in the following order: card 3, 2, 4, 1.

VC: "Put the pictures together so they make a story."

MC: Pull out card 1, and place card 2 next to it, repeat VC.

CORRECTLY SEQUENCING THE 4 PICTURES CONSTITUTES CRITERION PERFORMANCE.

*Item is assessed on the basis of the report of the staff member/parent.

1. KNOWING VALUE OF CURRENCY UP TO \$100

Place \$3.61 (3 dollar bills, 2 quarters, 1 dime, 1 penny) in front of the resident.

VC: *"How much money is this?"*

MC: Take out 1 dollar bill, 1 quarter, and the penny and say: "this is \$1.26." Return the \$1.26 to the remaining money; repeat VC.

NAMING THE EXACT AMOUNT OF MONEY CONSTITUTES CRITERION PERFORMANCE.

2. READING SIMPLE STORY

Show the resident a book appropriate for his age and point to a short passage (no longer than 5 lines).

VC: *"Read this for me."*

READING THE PARAGRAPH WITH NO MORE THAN 5 MISTAKES CONSTITUTES CRITERION PERFORMANCE.

3. KNOWING LINEAR MEASUREMENT

Place a ruler in front of the resident and point to the 18-inch mark.

VC: *"How long is this?"*

MC: Point to the 12-inch mark and say: "this is 12 inches long." Show him again the 18 inch mark; repeat VC.

NAMING THE NUMBER OF INCHES CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

4. KNOWING LIQUID MEASUREMENT

Place a measuring cup filled with half a cup (4 oz.) of water in front of the resident.

VC: *"How much water is in the cup?"*

MC: pour out some water so that 2 ounces are left. Say, "there are 2 ounces in the cup now." Refill water to 4-ounce mark; repeat VC.

NAMING THE NUMBER OF OUNCES CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

5. MAKES JUDGEMENT IN SEQUENCE

Place two sequenced pictures from the kit in front of the resident.

VC: *"What do you think will happen next?"*

NAMING A THIRD LOGICAL EVENT IN THE SEQUENCE CONSTITUTES CRITERION PERFORMANCE.

LEVEL I

2. DISPLAYING OBSERVABLE REACTION TO SPOKEN SOUNDS

○ ○ ○ ○

Call the resident by his first name. ANY CHANGE IN ACTIVITY SUCH AS TURNING TO SOURCE OF THE SOUND, EYE MOVEMENT, SMILING, OR FROWNING CONSTITUTES CRITERION PERFORMANCE.

3. MAKING VOCAL SOUNDS

○ ○ ○ ○

Observe the resident's vocalization pattern. MAKING VOCAL SOUNDS SUCH AS COOING OR THROATY SOUNDS CONSTITUTES CRITERION PERFORMANCE. Crying does not count as vocalization.

3. FOLLOWING VERBAL DIRECTIONS ACCOMPANIED BY GESTURES

○ ○ ○ ○

VC: "Come over here" accompanied by arm gestures indicating the direction of the intended movement.

MC: Ask a staff member to call you over, using arm gestures; repeat VC for the resident. MOVING TOWARD THE OBSERVER CONSTITUTES CRITERION PERFORMANCE.

4. RESPONDING NON-VERBALLY TO CONCRETE QUESTIONS

○ ○ ○ ○

VC: "Would you like a cookie?"

NODDING, HOLDING OUT HIS HAND OR SHAKING HIS HEAD CONSTITUTES CRITERION PERFORMANCE.

5. COMMUNICATING BY GESTURES*

○ ○ ○ ○

The item is passed if the staff member/parent reports that the resident communicates by gestures such as making his needs known by pointing to objects or pulling others to show them persons or situations.

1. IMITATING TWO-SOUND CHAINS

VC: "Say *dada*."

MC: Say *dada* and say: "can you say this?"

COMBINING THE TWO SYLLABLES CONSTITUTES CRITERION PERFORMANCE.

2. IMITATING SPEECH SOUNDS*

The item is passed if the staff member/parent reports that the resident imitates vocalization of staff members/parent or other residents.

3. REFERRING TO SELF BY FIRST NAME*

The item is passed if the staff member reports that the resident refers to himself by his first name. USING EXPRESSIONS SUCH AS "JOHNNY COOKIE," CONSTITUTES CRITERION PERFORMANCE.

4. NAMING FAMILIAR OBJECT USING ONE-SYLLABLE WORD

Show the resident a ball and a chair, one at a time.

VC: "*What is this?*"

NAMING ONE OF THE TWO OBJECTS CONSTITUTES CRITERION PERFORMANCE.

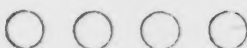
5. COMBINING TWO DIFFERENT WORDS*

The item is passed if the staff member/parent reports that the resident combines two words voluntarily or upon verbal request. USING EXPRESSIONS SUCH AS "WANT CANDY," "PLAY BALL," "GO BYE-BYE," CONSTITUTES CRITERION PERFORMANCE.

2. IMITATING THREE-WORD CHAIN

VC: "Can you repeat the sentence: Yesterday I went to a ball game."

REPRODUCING A THREE-WORD CHAIN FROM THE SENTENCE HEARD CONSTITUTES CRITERION PERFORMANCE.

3. NAMING BODY PARTS

Point to the following body parts, one at a time: eye, nose, arm, leg, hand, foot.

VC: "What is this?"

MC: Point to your nose and say: "this is my nose," then point to the resident's hand; repeat VC.

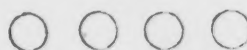
NAMING ANY ONE OF THESE BODY PARTS CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

4. NAMING ONE PICTURE

Show the resident the picture of a dog contained in the kit.

VC: "What is this?"

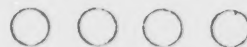
NAMING THE DOG (INCLUDING DIMINUTIVE ENDINGS SUCH AS "DOOGIE") CONSTITUTES CRITERION PERFORMANCE.

5. GIVING FIRST AND LAST NAME

VC: "What is your name?"

MC: Say my name is _____, "repeat VC.

SAYING HIS FIRST AND LAST NAME (INCLUDING NICKNAME IN CONJUNCTION WITH LAST NAME) CONSTITUTES CRITERION PERFORMANCE.

6. NAMING FIVE FAMILIAR OBJECTS

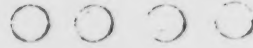
Point to the following objects in the house, one at a time: table, chair, kitchen, television, ball, cookie, cup.

VC: "What is this?"

MC: Point to the table and say: "this is a table." Point to the chair; repeat VC.

NAMING FIVE OUT OF SEVEN OBJECTS CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

LEVEL IV

1. USING PRONOUNS

VC: *"Tell me what you did today?"*

Note the resident's speech pattern during his description. OCCURRENCE OF PERSONAL PRONOUNS SUCH AS I, WE, ME, ETC. CONSTITUTES CRITERION PERFORMANCE.

2. USING ADJECTIVES

Show the resident the picture from the kit.

VC: *"What do you see in this picture?"*

MC: Point to the small object and say: "this is a little _____ (name object)."

Point to the larger object and ask the resident what is different.

OCCURRENCE OF ADJECTIVES SUCH AS LARGE, BIG, OR LITTLE, SMALL, CONSTITUTES CRITERION PERFORMANCE.

3. COMPREHENDING PREPOSITIONS

Hand the resident a book and make the following requests, one at a time.

VC: *"Put the book on the table (under the table, in front of the chair, behind the chair)."*

MC: Place the book on the table and say: "the book is on the table." Repeat VC for under the table.

COMPLYING TO THREE OF THE FOUR REQUESTS CONSTITUTES CRITERION PERFORMANCE.

4. IDENTIFYING OPPOSITES

VC: *"What is the opposite of cold?" (big, far, fat, short, laugh).*

MC: Say "the opposite of cold is warm." Repeat VC for big (far, fat, short, laugh).

NAMING THREE OF THE SIX OPPOSITES CORRECTLY CONSTITUTES CRITERION PERFORMANCE.

5. DEFINING THREE WORDS

VC: *"I am going to say a word and would like you to tell me what it is. What is a dog? (banana, house)."*

MC: Say, "a dog is an animal, can you tell me what a banana is?"

DEFINING ONE OF THE WORDS IN TERMS OF USE (BANANA-TO EAT) OR IN TERMS OF CLASSIFICATION (BANANA-FRUIT) CONSTITUTES CRITERION PERFORMANCE.

USING NOUN PLURALS

O O O O

Show the resident the picture with two dogs contained in the kit.

VC: "Tell me what you see in this picture."

USING THE PLURAL ENDING CONSTITUTES CRITERION PERFORMANCE.

DESCRIBING A PICTURE

O O O C

Show the resident the picture of a man contained in the kit.

VC: "Tell me what you see in this picture." Observer may elicit more information by asking the resident: "can you tell me a little more about the man?"

NAMING THE FIGURE, DESCRIBING BODY PARTS, OR CLOTHING CONSTITUTES CRITERION PERFORMANCE.

ASKING QUESTIONS

O O O C

VC: "Ask me a question."

ASKING QUESTIONS USING WHERE, WHAT, HOW OR QUESTIONS BEGINNING WITH A VERB, (E.G. DID YOU HAVE A NICE DAY?) CONSTITUTES CRITERION PERFORMANCE.

USING PAST TENSE

O O O C

Show the resident the flashcard contained in the kit.

VC: "What did you do yesterday?"

SUPPLYING THE PAST TENSE TO DESCRIBE HIS ACTIONS CONSTITUTES CRITERION PERFORMANCE.

CARRYING ON CONVERSATION

O O O C

VC: "Tell me what you did today."

USING COMPOUND SENTENCES (E.G. I WENT TO THE CAFETERIA AND HAD LUNCH) USING AT LEAST TWO COMPLETE SENTENCES CONSTITUTES CRITERION PERFORMANCE.

SOCIALIZATION

B21

LEVEL I

1. SMILING WHEN APPROACHED



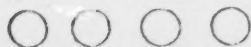
Approach the resident with a smile and a friendly "hello."
SMILING BACK RESPONSIVELY CONSTITUTES CRITERION PERFORMANCE.

2. MAINTAINING EYE CONTACT



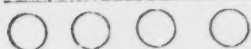
Address the resident by his first name and introduce yourself to him.
MAINTAINING EYE CONTACT FOR FIVE SECONDS CONSTITUTES CRITERION PERFORMANCE.

3. DEMANDING PERSONAL ATTENTION*



The item is passed if the staff member/parent reports that the resident indicates a desire to be talked to, paid attention to or directs the interest of others to himself.

4. RESPONDING TO AFFECTION*



The item is passed if the staff member/parent reports that the resident displays observable reactions to gestures of affection (hugging, kissing).

5. PLAYING BALL WITH OBSERVER



Sit across from the resident on the floor.

VC: "Roll me the ball."
INTERACTING WITH THE OBSERVER BY ROLLING OR PUSHING THE BALL TOWARD THE OBSERVER CONSTITUTES CRITERION PERFORMANCE.

*Item is assessed on the basis of the report of the staff member/parent.

1. OBEYING RULES AND COMMANDS*

○ ○ ○ ○

The item is passed if the staff member/parent reports that the resident generally complies with requests and obeys rules.

2. SAYING "HELLO" WHEN BEING APPROACHED

○ ○ ○ ○

Approach the resident with a friendly "hello."

VC: "What should you say if someone says hello to you?"

RESPONDING WITH HELLO OR HI CONSTITUTES CRITERION PERFORMANCE.

3. SAYING "THANK-YOU" WHEN RECEIVING OBJECT

○ ○ ○ ○

Offer the resident a cookie.

VC: "What should you say if someone gives you something?"

SAYING "THANK-YOU" UPON RECEIPT OF THE COOKIE OR UPON VERBAL REQUEST CONSTITUTES CRITERION PERFORMANCE.

4. ENTERTAINING SELF*

○ ○ ○ ○

The item is passed if the staff member/parent reports that the resident independently or upon verbal request entertains himself by playing.

5. PARTICIPATING IN GROUP ACTIVITIES*

○ ○ ○ ○

The item is passed if the staff member/parent reports that the resident voluntarily or upon verbal request joins group entertainment programs.

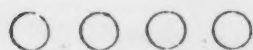
*Item is assessed on the basis of the report of the staff member/parent.

SOCIALIZATION

LEVEL III

B3

1. ACCEPTING HELP FROM OTHERS*



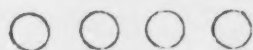
The item is passed if the staff member/parent reports that the resident accepts help from others (for example when working on a task) independently or upon verbal request.

2. TAKING CARE OF PERSONAL PROPERTY*



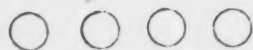
The item is passed if the staff member/parent reports that the resident takes care of his personal property voluntarily or upon verbal request.

3. TELLING THE TRUTH*



The item is passed if the staff member/parent reports that the resident tells the truth.

4. SHARING WITH OTHERS*



The item is passed if the staff member/parent reports that the resident shares with others voluntarily or upon verbal request.

5. PLAYING INTERACTIVE GAMES*



The item is passed if the staff member/parent reports that the resident engages in interactive play such as hide and seek, cops and robbers, etc.

LEVEL IV

1. OFFERING ASSISTANCE*

○ ○ ○ ○

The item is passed if the staff member/parent reports that the resident offers help to others voluntarily or upon verbal request.

2. APOLOGIZING*

○ ○ ○ ○

The item is passed if the staff member/parent reports that the resident apologizes voluntarily or upon verbal request.

3. BORROWING PROPERTY OF OTHERS BY ASKING PERMISSION*

○ ○ ○ ○

VC: *"What would you do if you want to borrow something from someone?"*
 THE ITEM IS PASSED IF THE RESIDENT INDICATES THAT HE WOULD OBTAIN PERMISSION BEFORE BORROWING SOMEBODY ELSE'S PROPERTY.

4. INTRODUCING SELF

○ ○ ○ ○

VC: *"What would you do if you met a person you do not know for the first time?"*
 MC: If I meet you for the first time and say "hello, my name is _____," what should you say?
 THE ITEM IS PASSED IF THE RESIDENT'S ANSWER CONTAINS ANY INDICATION THAT HE WOULD INTRODUCE HIMSELF OR ASK THE STRANGER TO INTRODUCE HIMSELF.

5. VOLUNTEERING FOR TASKS*

○ ○ ○ ○

The item is passed if the staff member/parent reports that the resident volunteers for tasks

*Item is assessed on the basis of the report of the staff member/parent.

SOCIALIZATION

LEVEL V

B

1. DISAPPROVING OF MALADAPTIVE PEER BEHAVIOR*

☐ ☐ ☐ ☐

The item is passed if the staff member/parent reports that the resident disapproves of maladaptive peer behavior (e.g. by ignoring or actively discouraging it).

2. ASSUMING PERSONAL RESPONSIBILITY*

☐ ☐ ☐ ☐

The item is passed if the staff member/parent reports that the resident assumes personal responsibility (e.g. displays concern for his personal welfare, observes safety precautions, recognizes authority figures, organized daily activities).

3. MAKING PLANS FOR FUTURE ACTIVITIES*

☐ ☐ ☐ ☐

The item is passed if the staff member/parent reports that the resident plans for future.

4. EXPRESSING CONCERN FOR THE WELFARE OF OTHERS*

☐ ☐ ☐ ☐

The item is passed if the staff member/parent reports that the resident displays an observable concern for the welfare of others.

5. SHARING COMMUNITY RESPONSIBILITY*

☐ ☐ ☐ ☐

The item is passed if staff member/parent reports that the resident participates in management of cottage affairs or holds position of trust among residents.

*Item is assessed on the basis of the report of the staff member/parent.

Recommended Guidelines for the Administration of Report-Based Items

The report-based items are listed on the following pages in sequential order. Upon completion of the observation-based items, place the answer sheet on this page when interviewing the staff member or parent. All report-based items are identified on the answer sheet with asterisks. The scoring key for each report item is listed below the respective item equating the appropriate number with the corresponding level of responding. All items are sequenced according to subscale and item number. When the Motor Development and Self-Help/Independent Living subscales are completed, turn the page and place the appropriate answer sheet opposite the page listing the self-report items of the following subscale. Repeat until all report-items have been assessed. Upon completion of the entire assessment the completed answer sheets may be stored in the pocket provided on the front cover of this test book.

MOTOR DEVELOPMENT

Level I: None

Level II: None

Level III: None

Level IV: None

Level V

- Item 4: Participating in team sports
 - 4. Independently without being asked
 - 3. When requested
 - 0. No

SELF-HELP/INDEPENDENT LIVING

Level I

- Item 4: Cooperating passively in dressing and undressing
 - 4. Independently
 - 0. No

- Item 5: Maintaining dry pants/diapers
 - 4. Independently
 - 0. No

Level II

- Item 5: Using toilet when placed
 - 4. With assistance
 - 0. No

Level III

- Item 2: Taking care of personal hygiene
 - 4. Independently without being asked
 - 3. When requested
 - 0. No

- Item 3: Attending schedules
 - 4. Independently
 - 3. When told
 - 0. No

- Item 5: Using toilet by self
 - 4. Independently by himself
 - 3. When requested
 - 0. No

Level IV

- Item 1: Preparing simple meals
 - 4. Independently by himself
 - 3. When requested
 - 2. With assistance
 - 0. No

Level IV

- Item 3: Completing tasks
 4. Independently by himself
 3. When requested
 0. No

- Item 4: Using telephone
 4. Independently by himself
 3. When requested
 0. No

- Item 5: Traveling to/from buildings
 4. Independently by himself
 3. When requested
 0. No

Level V

- Item 4: Displaying an interest in finding a job
 4. Independently by himself
 0. No

- Item 5: Managing money
 4. Independently by himself
 3. With assistance
 0. No

ACADEMIC/COGNITIVE

Level I

- Item 4: Attending to tasks for 5 minutes
 4. Independently by himself
 0. No

Level II

- Item 1: Attending to task for 15 minutes
 4. Independently by himself
 0. No

Level III

- Item 1: Attending to task for 45 minutes
 4. Independently by himself
 3. When requested
 0. No

Level IV

- Item 1: Attending to task for 1 hour
 4. Independently by himself
 3. When requested
 0. No

Level V: None

Level I

- Item 5: Communicating by gestures
4. Independently by himself
0. No

Level II

- Item 2: Imitating speech sounds
4. When requested
0. No

- Item 4: Referring to self by first name
4. Independently by himself
0. No

- Item 5: Combining two words
4. Independently by himself
3. When requested
0. No

Level III: None

Level IV: None

Level V: None

SOCIALIZATION

Level I

- Item 3: Demanding personal attention
4. Independently by himself
0. No

- Item 4: Responding to affection
4. Independently by himself
0. No

Level II

- Item 1: Obeying rules and commands
4. Independently by himself
0. No

- Item 4: Entertaining self
4. Independently by himself
3. When requested
0. No

- Item 5: Participating in group activities
4. Independently by himself
3. When requested
0. No

Level III

- Item 1: Accepting help
4. Independently by himself
3. When requested
0. No

Item 2: Taking care of personal property

- 4. Independently by himself
- 3. When requested
- 0. No

Item 3: Telling the truth

- 4. Independently by himself
- 0. No

Item 4: Sharing with others

- 4. Independently by himself
- 3. When requested
- 0. No

Item 5: Playing interactive games

- 4. Independently by himself
- 0. No

Level IV

Item 1: Offering assistance

- 4. Independently by himself
- 0. No

Item 2: Apologizing

- 4. Independently by himself
- 3. When requested
- 0. No

Item 3: Borrowing property of others with permission

- 4. Independently by himself
- 0. No

Item 5: Volunteering for tasks

- 4. Independently by himself
- 0. No

Level V

Item 1: Disapproving of disruptive peer behavior

- 4. Independently by himself
- 0. No

Item 2: Assuming personal responsibility

- 4. Independently by himself
- 0. No

Item 3: Making plans for future

- 4. Independently by himself
- 0. No

Item 4: Expressing concern for others

- 4. Independently by himself
- 0. No

Item 5: Sharing community responsibility

- 4. Independently by himself
- 0. No

Post-Entry Instrument/Answer Sheet

MOTOR
DEVELOPMENT IName
AgeObserver
Date

Level I	Level II	Level III	Level IV	Level IV
VC MC PC N 4 3 2 0 Reaching	VC MC PC N 4 3 2 0 Picking up blocks	VC MC PC N 4 3 0 Completing puzzle	VC MC PC N 4 3 2 0 Using hand tools	VC MC PC N 4 3 0 Assembling kit
VC MC PC N 4 3 2 0 Sitting for one minute	VC MC PC N 4 3 2 0 Standing without assistance	VC MC PC N 4 3 2 0 Balancing	VC MC PC N 4 3 2 0 Climbing up/down chair	VC MC PC N 4 3 0 Skipping 10 feet
VC MC PC N 4 3 2 0 Standing with assistance	VC MC PC N 4 3 2 0 Walking forward	VC MC PC N 4 3 2 0 Jumping over obstacle	VC MC PC N 4 3 0 Running 10 feet	VC MC PC N 4 3 0 Participating in team sports *
VC MC PC N 4 3 2 0 Rolling ball 2 feet	VC MC PC N 4 3 2 0 Kicking ball	VC MC PC N 4 3 2 0 Throwing ball at target	VC MC PC N 4 3 2 0 Catching ball	VC MC PC N 4 3 0 Batting a ball
VC MC PC N 4 3 2 0 Gripping	VC MC PC N 4 3 2 0 Sorting shapes	VC MC PC N 4 3 0 Picking the longer line	VC MC PC N 4 3 2 0 Copying a circle	VC MC PC N 4 3 0 Drawing a man
Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐
Level I Score ☐	Level II Score ☐	Level III Score ☐	Level IV Score ☐	Level V Score ☐
Total Motor Development Score ☐				

Post-Entry Instrument/Answer Sheet

SELF HELP/
INDEPENDENT LIVING IIName
AgeObserver
Date

Level I	Level II	Level III	Level IV	Level V
VC MC PC N 4 3 2 0 Retaining semi-solid food	VC MC PC N 4 3 2 0 Eating with a spoon	VC MC PC N 4 3 2 0 Using eating utensils	4 3 2 0 Preparing simple meals *	VC MC PC N 4 3 2 0 Filling in biographical information
VC MC PC N 4 3 2 0 Grasping finger food	VC MC PC N 4 3 2 0 Washing hands and face	4 3 2 0 Taking care of personal hygiene *	VC 0 4 0 Solving simple addition/subtraction problems	VC MC PC N 4 3 2 0 Counting change correctly
VC MC PC N 4 3 2 0 Drinking from cup	VC MC PC N 4 3 2 0 Drinking from soft drink bottle	4 3 0 0 Attending schedules *	4 3 0 0 Completing tasks *	VC MC 0 4 3 0 Telling time
4 0 0 0 Cooperating in dressing and undressing *	VC MC PC N 4 3 2 0 Assisting in dressing and undressing	VC MC PC N 4 3 2 0 Dressing independently	4 3 0 0 Using telephone *	4 0 0 0 Displaying an interest in finding a job *
4 0 0 0 Maintaining dry pants/diapers *	4 0 0 0 Using toilet when placed *	SI VC 0 4 3 0 Using toilet by self	4 3 0 0 Traveling to/from buildings *	4 3 0 0 Managing money *
Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐
Level I Score ☐	Level II Score ☐	Level III Score ☐	Level IV Score ☐	Level V Score ☐
Total Self-Help/Independent Living Score ☐				

ACADEMIC/COGNITIVE III

Observer _____
Date _____150

Post-Entry Instrument/Answer Sheet

LANGUAGE IV

Name
AgeObserver
Date

Level I	Level II	Level III	Level IV	Level V
SI ☐ ☐ ☐ N ☐ 4 0 Displaying observable reaction to sound	VC ☐ MC ☐ ☐ N ☐ 4 3 0 Imitating two-sound chains	VC ☐ ☐ ☐ N ☐ 4 0 Imitating three-word chains	SI ☐ ☐ ☐ N ☐ 4 0 Using pronouns	VC ☐ ☐ ☐ N ☐ 4 0 Using noun plurals
SI ☐ ☐ ☐ N ☐ 4 0 Making vocal sounds	4 ☐ ☐ ☐ 0 ☐ Imitating speech sounds *	VC ☐ MC ☐ ☐ N ☐ 4 3 0 Naming body parts	VC ☐ MC ☐ ☐ N ☐ 4 3 0 Using adjectives	VC ☐ ☐ ☐ N ☐ 4 0 Describing pictures
VC ☐ MC ☐ ☐ N ☐ 4 3 0 Following verbal directions	4 ☐ ☐ ☐ 0 ☐ Referring to self by first name *	VC ☐ ☐ ☐ N ☐ 4 0 Naming one picture	VC ☐ MC ☐ ☐ N ☐ 4 3 0 Comprehending prepositions	VC ☐ ☐ ☐ N ☐ 4 0 Asking questions
VC ☐ ☐ ☐ N ☐ 4 0 Responding non-verbally	SI ☐ ☐ ☐ N ☐ 4 0 Naming familiar object	VC ☐ MC ☐ ☐ N ☐ 4 3 0 Giving first and last name	VC ☐ MC ☐ ☐ N ☐ 4 3 0 Identifying opposites	VC ☐ ☐ ☐ N ☐ 4 0 Using past tense
4 ☐ ☐ ☐ 0 ☐ Communicating by gestures *	4 ☐ 3 ☐ ☐ 0 ☐ Combining two words *	VC ☐ MC ☐ ☐ N ☐ 4 3 0 Naming familiar objects	VC ☐ MC ☐ ☐ N ☐ 4 3 0 Defining three words	VC ☐ ☐ ☐ N ☐ 4 0 Carrying on conversation
Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐	Total number of criterion behaviors performed ☐
Level I Score ☐	Level II Score ☐	Level III Score ☐	Level IV Score ☐	Level V Score ☐
Total Language Score ☐				

Post-Entry Instrument/Answer Sheet

SOCIALIZATION V

Name
AgeObserver
Date

Level I	Level II	Level III	Level IV	Level V
(SI) () () (N) 4 0 Smiling when approached	(4) () () (0) Obeying rules *	(4) (3) () (0) Accepting help *	(4) () () (0) Offering assistance *	(4) () () (0) Disapproving of disruptive peer behavior *
(SI) () () (N) 4 0 Maintaining eye contact	(SI) (VC) () (N) 4 3 0 Saying "hello" when being approached	(4) (3) () (0) Taking care of personal property *	(4) (3) () (0) Apologizing *	(4) () () (0) Assuming personal responsibility *
(4) () () (0) Demanding personal attention *	(SI) (VC) () (N) 4 3 0 Saying "thank-you" when receiving object	(4) () () (0) Telling the truth *	(4) () () (0) Borrowing property of others with permission *	(4) () () (0) Making plans for future *
(4) () () (0) Responding to affection *	(4) (3) () (0) Entertaining self *	(4) (3) () (0) Sharing with others *	(VC) (MC) () (N) 4 3 0 Introducing self	(4) () () (0) Expressing concern for others *
(VC) () () (N) 4 0 Playing ball with observer	(SI) (VC) () (N) 4 3 0 Participating in group activities	(4) () () (0) Playing interactive games *	(4) () () (0) Volunteering for tasks *	(4) () () (0) Sharing community responsibility *
Total number of criterion behaviors performed	Total number of criterion behaviors performed	Total number of criterion behaviors performed	Total number of criterion behaviors performed	Total number of criterion behaviors performed
Level I Score	Level II Score	Level III Score	Level IV Score	Level V Score
Total Socialization Score				

Summary of Post-Entry Scores

Name:

Date:

Age:

Observer:

Scores
Behaviors Observed

Report from Supervisor

Total

Program Entry
Level

Motor
Development

Self-Help/
Independent
Living

Academic

Language

Socializa-
tion

Suggested Programs

Motor Development
Self-Help/Independent Living
Academic
Language
Socialization

Comments: Include any behavior which would hinder transfer to a community-based living alternative.

POST-ENTRY INSTRUMENT

Answer Sheet

Name: _____

Observer _____

Date: _____

Motor Development IV - 5Motor Development V - 5

Copying a circle

Drawing a man

Self-Help/Independent Living IV - 2

3

11

9

18

+5+4-7-6Self-Help/Independent Living V - 1

Name: _____

Birthdate: _____

Age: _____

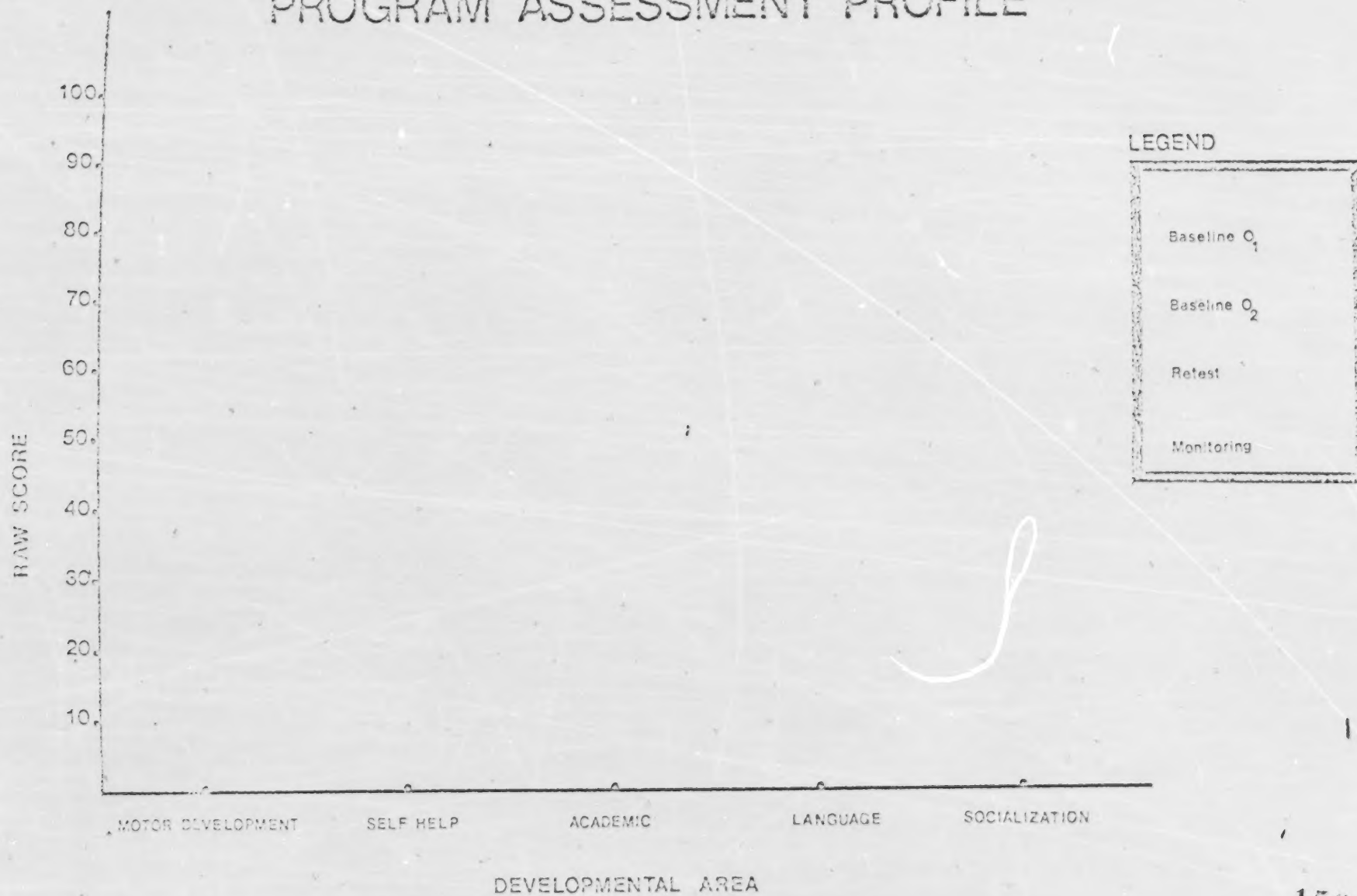
Address: _____

Academic/Cognitive I - 5Academic/Cognitive III - 5

Make marks on paper

Write your first and last name

PROGRAM ASSESSMENT PROFILE



PERSONAL DATA SHEET

Name: _____

Observer: _____

Age: _____

Date: _____

Sex: _____

Handicapped -
ImpairmentsNon-Handicapped -
Health Status During AssessmentAttitude
Indifferent _____

Visual _____

Excellent _____

Motivated _____

Auditory _____

Good _____

Shy _____

Physical _____

Fair _____

Fearful _____

Other _____

Poor _____

Distracted _____

Comments: _____

STAFF QUESTIONNAIRE

Name:

Staff Member:

Age:

Position:

Sex:

Date:

Please check if any of the following occurred between assessment dates.

_____ Changes in staff pattern.

_____ Changes in population.

_____ Changes in inservice requirements.

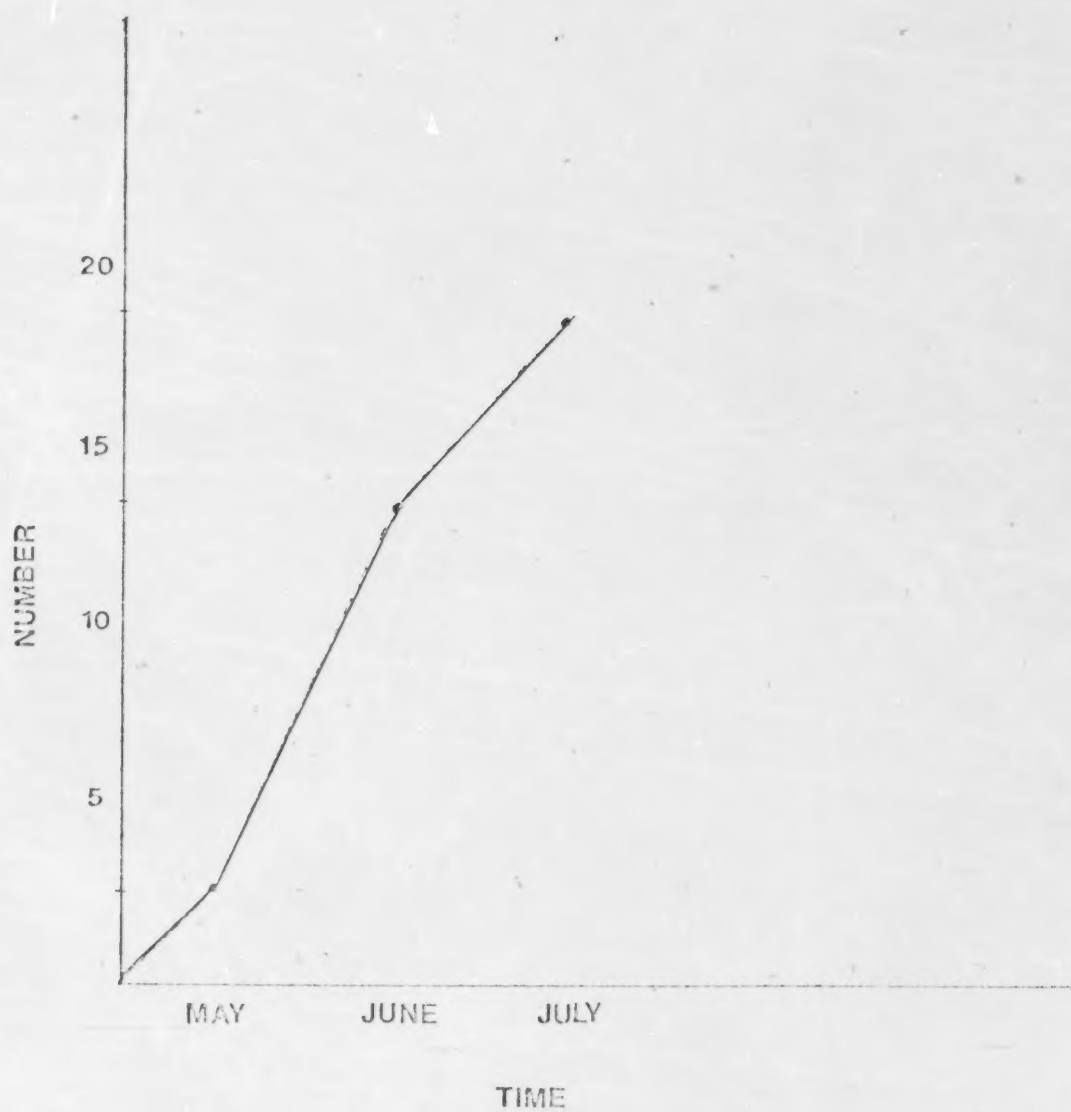
_____ Family or environmental trauma.

APPENDIX C

Requests for SEVTC Instruments

C1 Total Number of SEVTC Instruments Requested

REQUESTS FOR SEVTC INSTRUMENTS



APPENDIX D

Dissemination

D1	Presentations
D2 - 12	Publications

Dissemination of project results and products has occurred through different channels. The following presentations were made during the second project year:

1. AAMD, Region 9, Buck Hill Falls, Pennsylvania, November 19 - 22, 1975.
2. Lynchburg Training School and Hospital, Lynchburg, Virginia, February 23, 1976.
3. CEC State Convention, Reston, Virginia, March 4 - 6, 1976.
4. CEC National Convention, Chicago, Illinois, April 5 - 6, 1976.
5. AAMD National Convention, Chicago, Illinois, May 31 - June 4, 1976

Project results have also been disseminated via the enclosed publication in the American Association for the Education of the Severely/Profoundly Handicapped Review under the title "Behavioral Assessments Procedures for Community Reintegration."

The American Association for the Education of the Severely/Profoundly Handicapped

VOLUME 1

MARCH, 1976

ISSUE 4

CONTENTS

Lynch, Valerie, Shoemaker, Sue, and White, Owen, <i>University of Washington</i> . Training needs survey	1
Bellamy, G. Thomas, and Snyder, Stephanie, <i>University of Oregon</i> . The trainee performance sample: Toward the prediction of habilitation costs for severely handicapped adults	17
Reavis, H. Kenton, Morrey, James G., and Eamel, Karin, <i>Southeastern Virginia Training Center</i> . Behavioral assessment procedures for community reintegration	37
Staff of the <i>Diagnostic School for Neurologically Handicapped Children, Southern California</i> , Donald I. Ashurst, Superintendent. Annotated bibliography for professionals and parents who work with severely handicapped children	47
Rutherford, Robert B., Jr., <i>University of Southern California</i> . Bibliography of books in behavior modification and behavior therapy	78
Contributing to this issue	107

Behavioral Assessment Procedures for Community Reintegration¹

H. Kenton Reavis, James G. Morrey, and Karin Hamel
Southeastern Virginia Training Center

Recent literature indicates that an increasing number of individuals with mental retardation problems are involved in various processes for community reintegration as defined by movement to less restrictive (more normal) programming environments. To facilitate this process, a three phase behavior assessment and prescription system is proposed. This system is designed to monitor the specific functioning levels of persons with mental retardation problems. At the screening (pre-selection) level, a skill assessment instrument has been formatively validated which provides basic data from obtaining specific levels of skill functioning in several behavioral categories. This data means individual persons can be identified as to their profiting from available institution/ community celeration programs and provides information for new programs needed to further reintegration efforts. At the programming (pre-selection) level, a detailed skill assessment instrument has been developed. This more intense behavioral observation assessment is used to determine individual entry levels into specific celeration programs and to monitor skill acquisition as a function of the teaching. At the community entry (pre-release) level, a skill assessment instrument is conceptualized which will identify those skills that translate into necessary prerequisites for various community living alternatives. At each level reliability, validity, time efficiency, and direct relevance to least restrictive environmental programming is emphasized, with the highest level of living with human dignity as the goal.

Historically, the majority of individuals with severe and profound mental retardation problems have lived in large state institutions or at

¹ This research is funded by Social and Rehabilitation Grant No. 51-P-15443/3-01 to Southeastern Virginia Training Center for the Mentally Retarded, Chesapeake, Virginia.

home receiving mainly custodial care. Recently, however, there has been a national move toward programming for reintegrating these individuals (Wolfensberger, 1972) back into the mainstream of functioning with dignity in the community (a process often referred to as "deinstitutionalization" - hereinafter called reintegration). Spurred by numerous court cases, state law changes (e.g., Virginia's "Rights of Residents" Statutory Addition 37. 1-84.1, 1974), and national legislation (e.g., the DDA Act - PL 94-103, 1975), the current accent is on evaluation, planning, and programming for the individual in the least restrictive environment possible.

According to the President's Committee on Mental Retardation (1974), community reintegration (deinstitutionalization) encompasses three inter-related processes: (1) the prevention of institutionalization by developing community alternatives of programming, independent living, and medical care, (2) return to the community of all institutionalized persons through programs of habilitation in the community, and (3) the establishment and maintenance of a responsive residential environment which protects human and civil rights and which contributes to the expeditious return of the individual to normal community living. It is posited that these processes may be effectively incorporated into a three phase assessment system for facilitating successive moves from (1) restrictive (i.e. institution) through (2) specialized short-term program oriented facilities, to (3) the least restrictive community environment, i.e. public schools, parents' home, community programming homes (group homes), etc.

As this trend toward community reintegration develops, the need for reliable and valid behavioral assessments becomes increasingly critical. Whereas more traditional interindividual approaches to assessment have placed major emphasis on measuring the level of performance relative to a group average there exists another area of meaningful screening measures and/or monitoring where the emphasis is on measuring the intraindividual level of performance relative to a pre-specified criterion for each individual rather than the level of his performance as compared to others (Ozenne, 1971).

With this shift in measurement emphasis, the implication is that more specified objective-based measures should be utilized. As an alternative, the concept of criterion-referenced measurement (CRM) as introduced by Popham and Husek (1969) and defined as those measures which are used to ascertain an individual's status with respect to some criterion such as a skill performance level has relevance. Similarly, for Glaser and Nitko (1971) criterion-referenced instruments are those measures that are deliberately constructed to yield performance levels that tell what kinds of behaviors individuals falling within a specific range of performance can demonstrate. While the ultimate goal of all assessment procedures may be essentially the same, e.g., insuring the best possible data to assist in determining programmatic interventions, the criterion-referenced approach holds the most promise for the assessment of individuals with mental retardation problems since it entails a methodology for the direct sampling of the criterion behaviors for entry to less restrictive programming environments. The primary value of this

type of assessment is to help in the identification of the direct skills and skill levels, and therefore programs necessary for an individual to live in the least restrictive community alternative possible.

Reviewing scales frequently used in the assessment of persons with severe/profound mental retardation problems, Reavis, Oksner, Hylton, and Morrey (1975) found an apparent lack of highly reliable, expediently administered instruments which serve the dual purpose of measuring the individual's behavioral repertoire at various stages of community reintegration and lead directly into program prescriptions implementation. To make proper selection and programmatic decisions, a corresponding three phase assessment system for evaluation, planning, and monitoring during community reintegration has been developed. Figure 1 shows the relationship of individual flow and placement to the assessment process at various stages of community reintegration. Such instruments are designed to be administered by a variety of staff persons.

(Insert Figure 1 here)

The concept of community reintegration assumes a systematic reduction in the population of the large state institutions and persons in the community presently not receiving programs. To facilitate the selection and transfer process, the pre-selection (screening) instrument has been formatively validated. The main objective is to provide decision-making

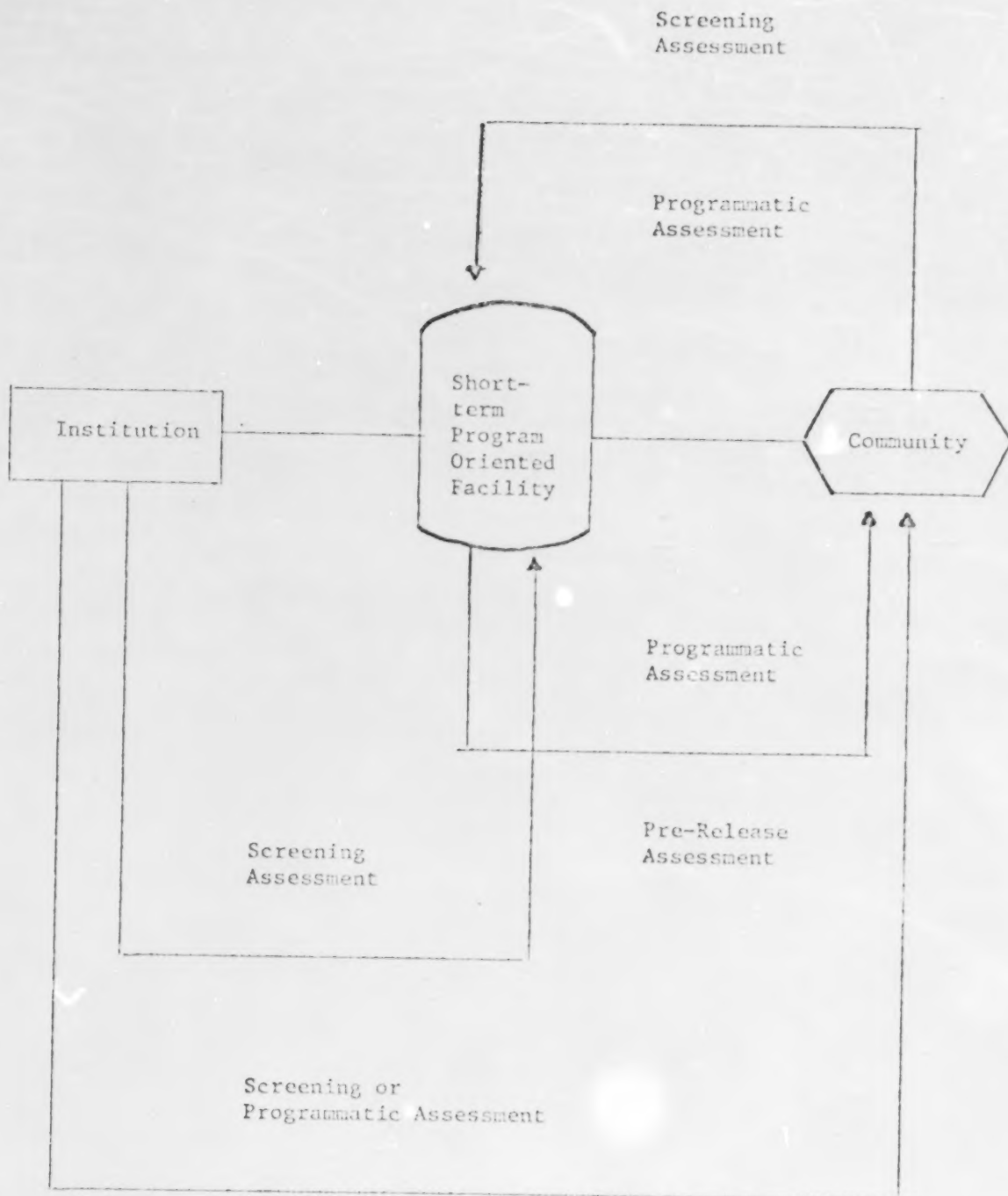


Figure 1. Flow of persons as related to screening (pre-selection), programmatic (post-selection), and community (pre-release).

information based on analysis of skills and skill levels of prospective individuals. This data means individuals can be selected on the basis of the likelihood of their profiting from available specialized short-term programs. As a screening device, the pre-entry instrument utilizes a criterion-referenced, response-contingent approach (Wood, 1973) to assessment in the form of a structured direct-contact staff interview conducted at the sending environment. The overall structured interview was determined by two factors: (1) the need for time efficiency, (2) the need for maximum information to enable screening, community reintegration planning, pre-release training at the institutions, etc.

The pre-entry instrument was formatively validated with a sample population of severely/profoundly retarded residents that had been institutionalized at two large state institutions.

The pre-entry assessments assayed eight skill areas: gross motor, table behavior, dressing, toilet behaviors, personal hygiene, vocational skills, and language through ward aide responses to forty items asked by the interviewer. The pre-entry instrument was also designed to provide additional resident information (summarized from individual files) to include a Maladaptive Behavior Checklist, a record of resident training programs, a summary of current medication, special diet and/or physical problems, and vocational history. The pre-entry instrument and its accompanying forms constitute the basic source of information used by the community services focus teams (Morrey, Lindsay, Byrne, Watrous, Reavis, Andresen, & Rice, 1975) for determining short-term community transfer placements and for pre-programmatic planning for currently institutionalized residents.

The pre-entry instrument has undergone several field tests at state institutions as well as privately owned residential facilities for the mentally retarded. Reliability has been established in terms of percentage of inter-aide agreement, i.e., the case in which three aides were interviewed, and the inter-interviewer percentage of agreement, i.e., the case in which three different interviewers questioned the same aide about the same resident on three consecutive days. For both indices of reliability the eighty percent criterion level of agreement was reached or exceeded with thirty-five of the forty items on the pre-entry instrument. In addition to reliability indices across independent raters the pre-entry instrument has also demonstrated reliability over time.

Residents who were transferred from the two state institutions in Virginia to Southeastern Virginia Training Center for the Mentally Retarded (SEVTC) (Morrey et al., 1975) constituted the validation sample. Validity of the pre-entry instrument was established by comparing the agreement between data gathered on the pre-entry instrument with actual observation of the individual's behavioral repertoire during the first ten days at SEVTC.

Phase II of the assessment system focuses on the development and validation of an extensive observation-based instrument designed to measure behavioral gains as a function of programmatic intervention. At the post-entry (programmatic) level the scope of behaviors to be assessed encompasses motor development, self-help and independent living skills, language, socialization, and academic skills. This expansion of referenced skills is necessary since individuals undergoing community reintegration

training require fundamental skills in all these behavior domains. The post-entry assessment/prescription instrument is currently being developed for use by short-term programming facilities, or community agencies involved in direct program services for the movement of persons with mental retardation problems to the least restrictive program-living alternative in the community.

Phase III anticipates the development and validation of a pre-release instrument designed to identify and evaluate those critical skills which are necessary prerequisites for successful adaptation to various community living alternatives such as natural/foster homes, community programming homes, or satellite apartments.

In summary, this project has partially completed validation of a three phase system of criterion-referenced instruments. These instruments at the screening and programmatic assessment level for an individual's skills have stressed relevance to the least restrictive programming environment. With the completion of the third phase, an assessment package will be available that provides a set of validated skill assessment instruments based on a three phase community reintegration model for facilitating the attainment of the highest level of independent living for individuals with mental retardation problems.

References

- Glaser, K., & Nitko, A. Measurement in learning and instruction.
In R.L. Thorndike (Ed.), Educational Measurement. Washington,
D.C.: American Council on Education, 1971.
- Morrey, J., Lindsay, C., Byrne, P., Watrous, K., Reavis, K.,
Andresen, N., & Rice, J. Southeastern Virginia Training Center:
Annual report. Unpublished manuscript, 1975.
- Ozenne, D. Toward an evaluative methodology for criterion-referenced
measures: Test sensitivity (CSE Report No. 72). Los Angeles:
University of California at Los Angeles, Center for the Study of
Evaluation, 1972.
- Popham, J., & Hisek, T. Implications of criterion-referenced measure-
ment. Journal of Educational Measurement, 1969, 6 (1), 1-9.
- President's Committee on Mental Retardation. Residential programming:
Position statements by the National Association of Superintendents
of Public Residential Facilities for the Mentally Retarded. Wash-
ington, D.C.: President's Committee on Mental Retardation, 1974.

Reavis, H.K., Oksner, P., Hylton, E., & Morrey, J.G. Individual analysis and prescription profiles for deinstitutionalization. Unpublished manuscript, June 1975.

Wolfensberger, W. The principle of normalization in human services. Toronto: National Institute on Mental Retardation, 1972.

Wood, R. Response-contingent testing. Review of Educational Research, 1973, 43 (4), 529-544.